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SCIENCE AND INDUSTRY

JANUARY, 1944

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# fueloil & oil heat

STACKS

*Annual Oilheating Analysis*

# AGAIN AVAILABLE
# *for the Home Front!*

At last, you can look forward to a new heating season with the welcome prospect of having something definite to sell! For, once again, the engineered heating-and-plumbing products of General Fittings Company are available for your resale to homes and non-war industries.

### Strategic Metals Released

Ever since Pearl Harbor, strategic metals have been "frozen". Entire production of this company has been applied to water heaters, unions, specialties and precision assemblies for war services such as in fighting ships, warplants and Army housing.

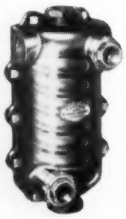
Now, the WPB has released limited quantities of strategic metals . . . and General Fittings Company can again make deliveries to the "home front" on properly rated orders!

### Your Opportunity

Here is your chance to fill some of the many demands that have been piling up for months. Send your order for water heaters or other General products *today* . . . or write for complete catalog No. 15. *Don't delay* . . . the supply is limited by the reduced quantities of metal available. General Fittings Co., 125 Georgia Ave., Providence, Rhode Island.

# GENERAL

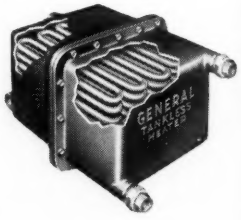
**WATER HEATERS AND HEATING SPECIALTIES**



**QUALITY PRODUCTS**

**Tankless and Tank-Type Water Heaters for Industrial Plants—Apartment Houses—Homes**

**Thermostatic Mixing Valves** — **Coil-heated Tanks**
**Water-hammer Silencers** — **Live-steam Heaters**
**Built-in Water Heaters for boilers** — **Pipe Unions**



## *Consider "Mrs. 36703923"*

MR. 36703923* is a lieutenant now, and overseas. His wife and the two children are doing fine on the allowances and some help from the folks—but they can't afford unnecessary waste.

You're called to their house. Burner has quit. The place is getting chilly, and the baby has a cold.

It's an easy one, though. Water level is down in the boiler, and the safety has tripped. Run in some water and push the reset. O.K., let's get the next call . . .

*But wait!* The lieutenant is putting in extra time for you . . . why not put in a little for him? When he was home, he used to check these things himself. Now it's your turn.

Pull the switch. Something doesn't sound just right. Start her up and try it again. That's it—kind of a dying-out on the flame instead of a quick, clean stop. Take a look. It's the cut-off all right.

Let's see—It might be air in the suction line—or an air pocket between the valve and the nozzle—or a damaged valve seat—or dirt on the valve seat. Tighten the plugs and the couplings, and take a look at the valve. You know how—that's your business.

Try it now. O.K.? Better tell the Mrs. what you found and what you did. She will appreciate it. Fuel waste eliminated . . . a possible emergency call later avoided . . .

And . . . if you should have to replace any old or worn-out pumps, use Sundstrand S-1, S-2, or 1-OB Fuel Units. Write for Bulletins 106 and 107 showing mounting adaptors and foot mountings. Be sure you've got our free Service Bulletin 102.

Keep 'em running . . . efficiently!

*Keep Buying War Bonds*

*This is intended to represent an imaginary person.

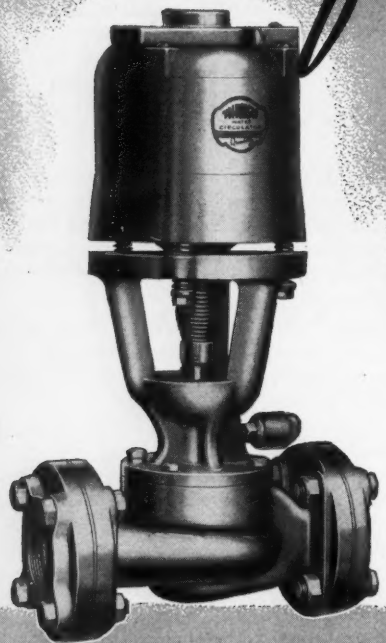
**SUNDSTRAND PUMP DIVISION**

SUNDSTRAND MACHINE TOOL CO. ROCKFORD, ILLINOIS U.S.A.

**2556 ELEVENTH ST.**
**ROCKFORD, ILLINOIS**

*fueloil & oil heat*

# TIME TO MAKE POST-WAR *friendships now!*



**NOBODY knows when the end of the War in Europe may come . . . but it is sound business to remember that helping home owners save fuel for Victory and keep warm with less fuel is a sure way to win their friendship. Installing Thrush equipment now is your best opportunity to make the friends who will assure you of a chance to install heating equipment in the Post-war homes that are already being planned in many cases. If you are not familiar with Thrush Summer-Winter System of Hot Water Heat, Thrush Water Circulators and Controls, see your wholesaler today or write us, Dept. C-1.**

*Buy More War Bonds*

## H. A. THRUSH & COMPANY . . . PERU, INDIANA

Vol. 2 No. 9

fueloil & oil heat

JANUARY 1944

# Names in the news

*Robert Bartlett*, general manager of Gulf Oil Corp., Pittsburgh, and *H. B. VanCleve*, president of Maritime Petroleum Corp., New York, have been appointed members of the Fueloil Industry Advisory Council of the Fuel Rationing Division of OPA. They attended the December 7 meeting. VanCleve had originally been a member when the Council was formed, but resigned when he became for a time a PAW official.

**Robert Bartlett**

*Earl J. Gossett*, president of Bell & Gossett, Chicago, was elected a director of the United States Radiator Corp., Detroit, at the Dec. 14 meeting.

*Donald J. Luty* has been appointed general manager of the Heating Div. of Gar Wood Industries, Inc., Detroit. For fourteen years he was assistant general manager as well as chief research engineer of the Company.

**Don Luty**

*John F. Lebor*, formerly assistant treasurer of the York Corp., York, Pa., has been named treasurer. *John S. McMartin* was elected a director of the corp. McMartin is vice-president of Selected Industries, Inc., an investment company that recently acquired substantial York stock holdings.

*Lemuel R. Boulware*, formerly general manager of the Carrier Corp., has been appointed operations vice-chairman of the War Production Board, after having been with WPB in other capacities since March 1942.

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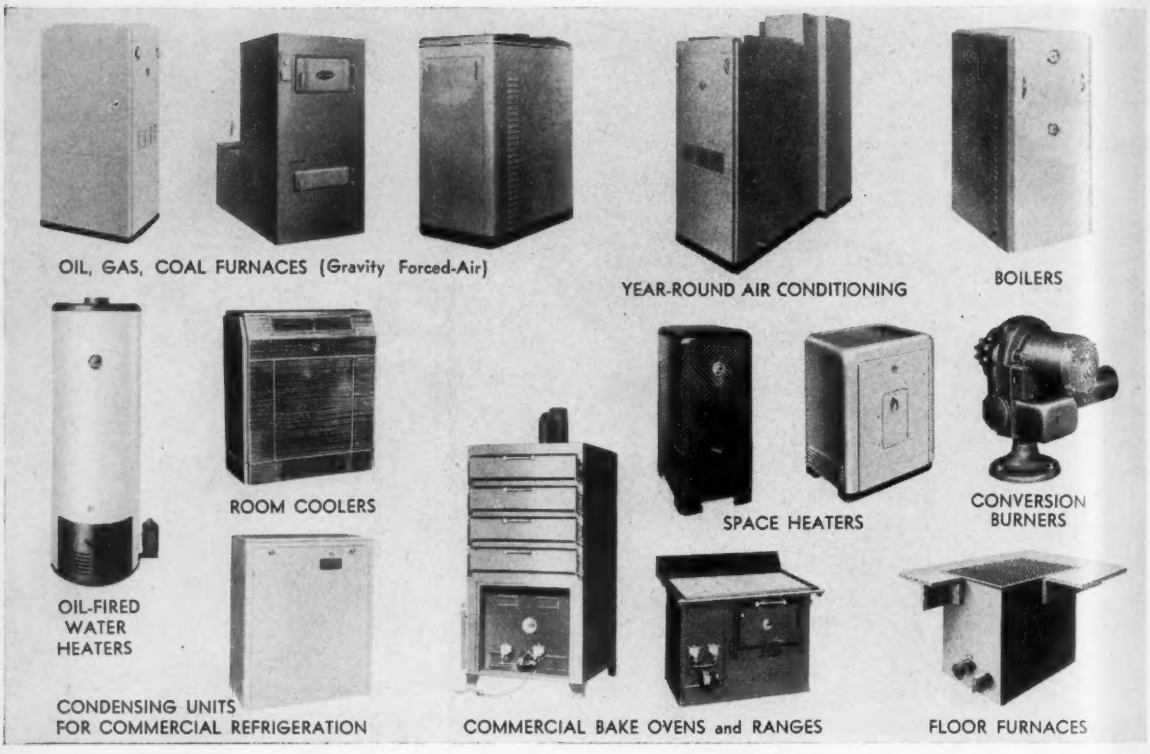
# *This* MAJOR LINE OF EQUIPMENT BY VIKING




## MEETS EVERY HEATING AND COOLING NEED . . .

One of the biggest and best known plants in the heating and air-conditioning industry is right now all tooled up and merely waiting for your orders. Equipment for permitted fuels is available on orders acceptably rated under current government regulations. The Viking line has been in production continuously throughout these war years, supplying war projects and the armed services with the finest heating and allied equipment America can build.

## BUILD YOUR SALES WITH VIKING— THE LINE THAT'S READY TO SERVE YOU!

Think of all the unfilled orders accumulated right now in your community for the items illustrated — then think of the hundreds of additional orders that will "break" as peace approaches. Get actively into this great market now. Go after today's orders on which priority is available— and *make ready* for all the others which await the day of unrestricted selling.

Let us show you the products we will have available for you, and proof of our ample capacity to keep supplying them. Only then will you realize just how big this opportunity is for you.

In all this conversation about Postwar Planning, some in the trade are losing sight of the fact that equipment is being sold every day.

Throughout this period of shortages of critical materials, we have been able continuously to supply Viking equipment to both government and our trade. Dealers who submit orders with acceptable priorities are receiving the needed material with reasonable promptness. Sooner than most of the trade realizes, our civilian production will increase.

## LOOK TO YOUR *VIKING DISTRIBUTOR!*

In these difficult times add his weight to your efforts. Now and postwar he is your *complete* supplier — maintains showrooms — provides engineering assistance and financing—and gets quick action for you from manufacturers.

We believe our policy of supplying Viking merchandise *only* through fully qualified distributors best insures complete satisfaction to everyone, including the user who pays all of us.

By this policy, a Viking dealer has a large, nearby "pool" of Viking units, parts and accessory material at his disposal without wasteful capital investment on his part. Under this arrangement a Viking dealer is enabled to put *full* emphasis on his most profitable functions — SALES, INSTALLATION and SERVICE.

## MAIL COUPON FOR VIKING CATALOG

If you are looking for the ideal source of supply —the one that can give you practically every type of equipment in the heating and allied fields—get our proposition and catalog today. Mail coupon or write.

# VIKING

## HEATING · COOLING

**THE VIKING MFG. CORPORATION**
**U. B. Building, Dayton 2, Ohio**

Please send your catalog and proposal.

*Your Name* .....

*Firm Name* .....

*Address* .....

.....

Mark here whether dealer ☐ or jobber ☐

Fuel oil & oil heat

# ARE YOU AN UNSUNG BASEMENT HERO?

Of course you are — but we know you're not worrying about the fact that everybody doesn't recognize the importance of the job you are doing. The really vital thing is that you heating dealers and service men are performing a mighty big part in the war effort.

To "keep the home fires burning" is just as vital in this war as it was in the last, although there's been less singing about it now than there was then. Health, efficiency of workers, and morale all depend in a large measure on proper heating.

It has been, and still is, a difficult job to keep existing heating plants in service, functioning as efficiently as possible. Heating men have the solid satisfaction that they are meeting the situation ably and effectively.

Penn assures you that we appreciate your work... *and are anxious to be as helpful as possible. We are prepared to supply necessary Penn controls* for all types of heating as liberally as existing priority rules will permit. *Penn Electric Switch Co., Goshen, Ind.* In Canada: Powerlite Devices, Ltd., Toronto, Ontario.

MEMBER I.C.I. INDOOR COMFORT INSTITUTE

ARMY NAVY E

A Star ... for continued Excellence in Production

# PENN AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, ENGINES, PUMPS AND AIR COMPRESSORS

note for TOMORROW

# Better Living

AT ITS BEST • • •

*with*

# OIL-O-MATIC

COMFORT will determine true livability in homes of tomorrow. Comfort whether members of the household are televising the latest headline event . . . enjoying delectables from their magic kitchen . . . or reading by the soft, shadowless lights in their living rooms. Then —as for more than twenty pre-war years— *precision-built* Oil-O-Matic products will assure better living at its *best* . . . whether in present homes, resplendent with their years of happy memories or in those spectacular new homes which are being planned for tomorrow. For either — yes, for *both* — there will be a Williams — designed, *precision-built* Oil-O-Matic product to keep home temperature at healthful comfort level . . . automatically, dependably, *economically.* Tomorrow, once again, Oil-O-Matic will mean better business through better living . . . at its best.

BUY WAR SAVINGS STAMPS & BONDS

THE BONDS YOU BUY TODAY ARE YOUR GUARANTEE OF A Better Tomorrow!

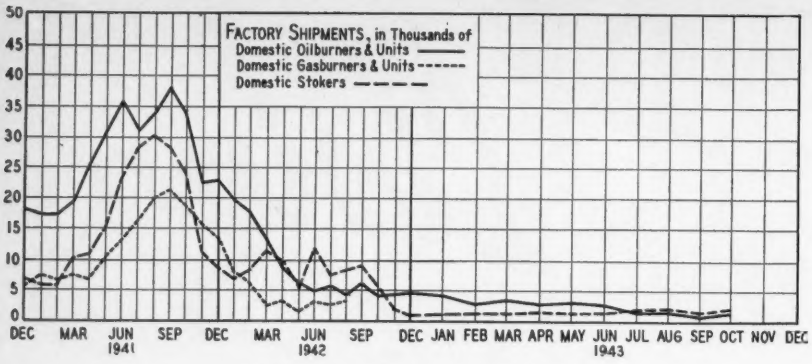
ARMY E NAVY

WILLIAMS OIL-O-MATIC HEATING

## WILLIAMS OIL-O-MATIC HEATING CORPORATION

BLOOMINGTON, ILLINOIS

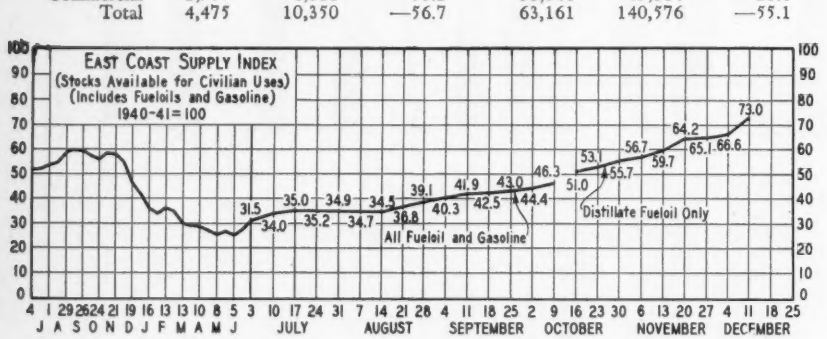
fuel oil & oil heat


FACTORY SHIPMENTS, in Thousands of
Domestic Oilburners & Units
Domestic Gasburners & Units
Domestic Stokers
DEC MAR JUN SEP DEC MAR JUN SEP DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
1941 1942 1943

## Shipments of Oilburners and Units

Adjusted to include manufacturers other than the 137 reporting to Census Bureau, FUELOIL & OIL HEAT's estimates of shipments are:

| | OCTOBER | | | TEN MONTHS | | |
|---|---|---|---|---|---|---|
| | 1943 | 1942 | Percent Change | 1943 | 1942 | Percent Change |
| Conversion | 1,211 | 2,917 | —58.6 | 13,863 | 64,654 | —78.9 |
| Boiler units | 152 | 320 | —52.5 | 6,022 | 8,759 | —31.3 |
| Furnace units | 157 | 802 | —80.5 | 4,936 | 16,989 | —71.0 |
| All domestic | 1,520 | 4,089 | —63.0 | 24,821 | 90,402 | —72.6 |
| Commercial | 2,955 | 6,311 | —53.2 | 38,340 | 49,814 | —23.0 |
| Total | 4,475 | 10,350 | —56.7 | 63,161 | 140,576 | —55.1 |


EAST COAST SUPPLY INDEX
(Stocks Available for Civilian Uses)
(Includes Fueloils and Gasoline)
1940-41=100
All Fueloil and Gasoline
Distillate Fueloil Only
J A S O N D J F M A M J
JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER

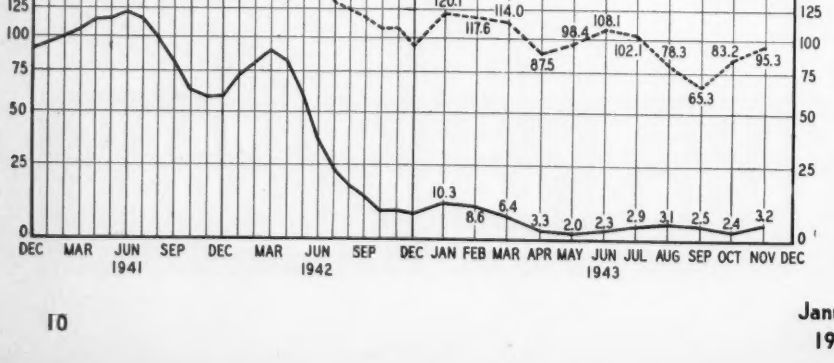
## November Minimum Retail Prices: Key Dealers

| | CONVERSION BURNERS | | BOILER-BURNERS | | FURNACE-BURNERS | |
|---|---|---|---|---|---|---|
| | Top price* | Low price | Top price* | Low price | Top price* | Low price |
| Highest | $338 | $195 | $675 | $395 | $825 | $395 |
| Lowest | 200 | 169 | 426 | 375 | 425 | 310 |
| Nov. Aver. | 263 | 185 | 518 | 383 | 506 | 356 |
| Oct. Aver. | 266 | 175 | 504 | 376 | 502 | 375 |

*Top price key dealers for conversion burners are those whose minimum retail prices are $200 or more; for boiler-burner and furnace-burner units (exclusive of ductwork) those whose minimums are $400 or over.

## Price Index: Conversion Burners: Jan. 1940 is 100%

| WHOLESALE | | | | RETAIL | | | |
|---|---|---|---|---|---|---|---|
| November | 104.8 | Six months ago | 103.7 | November | 109.6 | Six months ago | 109.6 |
| October | 104.9 | Year ago | 106.3 | October | 110.7 | Year ago | 108.0 |


INDEX OF BURNER PERMITS in 43 Cities
(Average of 1936-7-8=100)
INDEX OF NEW HOME PERMITS in 35 Cities
(Average of 1936-7-8=100)
Both indexes adjusted for seasonal variation
DEC MAR JUN SEP DEC MAR JUN SEP DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
1941 1942 1943

# Oilheating Trends

MOVING AGAINST THE USUAL seasonal pattern, November installations of domestic oilburners and units were higher than October, 1,369 compared with 1,248, virtually all replacements of worn-out burners. November installations were down 44.6% from the same month a year ago, with permits in 40 principal cities declining 51.9% and reporting key dealers showing a drop of 37.2%. With figures for 11 months complete, it now appears that total replacement sales for the year were about 14,000, an extremely low figure considering that nearly two and a half million domestic burners are operating. It shows that in extremity a lot of patching can be done to keep the old cripples hobbling along. In the last prewar year, 1941, replacement sales were 56,300.

It is quite certain that the December-March period this season will see a decided acceleration in replacement burner business. The shot-in-the-arm treatment for the 1927 models has been overworked, and further, it is now easier to make a replacement, with WPB's new Form 2727 procedure. If the old burner is beyond repair the dealer now can make the replacement at once and then within five days fill out 2727 and mail it to WPB.

With most critical materials in easier supply, it would seem sensible to replace as many as 75,000 old burners in 1944, providing that proper safeguards were set up to be sure the old ones were junked. This would certainly save oil and provide dealers a little needed income. The one tight spot in assembling the burners would be motors, but insofar as manufacturers have or could get these they should be allowed to merchandise replacement burners.

PRICES: Both wholesale and retail prices for conversion burners showed a slight decline for the month on the index. This may reflect buying in somewhat larger quantity and more energetic retail sales effort. The prices in the tables, which average all reports of the month, whether or not regularly received, show a rise in four classifications, a decline in two.

STOCKS: The average reporting key dealer had on hand November 30 eighteen domestic burners and units. Total dealer stocks apparently are about 13,000. Fac-

tory stocks at the end of October, the latest month for which figures are available, were 34,629 domestic burners and units, with the following breakdown: conversion 16,243; boiler-burner units 9,353; furnace-burner units 9,033. Factory stocks at the start of October had been 35,348; shipments during the month were 1,520, indicating new factory production of 801.

SERVICE INCOME: November service department income of dealers heard from averaged $4,220 or 21% above an average of $3,501 for the same dealers a year ago. October service income of the group averaged $3,119 and September $3,759. It now appears that the dealers reporting monthly their service income, with consistent gains over the corresponding month of the previous year, have done better than the industry as a whole. In a much larger annual questionnaire survey, made each year at mid-December, dealers show less than one percent change in service income comparing 1943 with 1942. With fuel-saving warnings in every newspaper, 1942 had jumped far above 1941 for this large group, but in 1943 they appear to have just held the line.

GETTING BURNERS: Because some dealers had complained of difficulty in getting WPB permission to buy burners for stocking against emergency needs, several questions this month were designed to measure the difficulty. Reporting first on their general impression of WPB's handling of 2727's, 53% have no complaint, 13% vote Fair and 34% are dissatisfied. Eastern dealers are better satisfied than Midwestern. Asked whether they file a 2727 after making an emergency replacement, 86% do and 14% do not. The time lag between filing a 2727 to get stock burners and receiving a decision from WPB varies between 7 and 30 days, averaging 16 days. Midwestern dealers average waiting 22 days, with two saying that their applications have been in for more than a month without reply.

REPAIR PART PRICES: With certain repair parts and accessories hard to get, some dealers have complained over what they consider exorbitant prices being charged. Questioned on this point, 65% say they have no complaint—that although some prices may be out of line, they're not kicking for they can pass the cost along to the customer. However, 35% are annoyed, claiming they pay from 10 to 50% too much on some items. Supply houses seem the worse offenders, with 29% of dealers reporting trouble with them, while only 12% think manufacturers overcharge them.

COAL SUPPLY: With pressure on the part of people who had converted to coal for permission to reconvert to oil noticeably eased in the past month, the reason is apparent from reports of local coal stocks. Dealers in 88% of cities heard from say coal yards in their communities have enough supply to care for everyone temporarily; in the remaining 12% they do not. However, when asked if their local coal dealers now expect to be able to get enough for all of their customers' needs through the winter, only 27% vote "Yes" and the other 73% are much in doubt. With the Solid Fuels Administration at long last getting money from Congress to hire some people, there should from now on be fairly good distribution, although there cannot fail to be occasional dry spots. SFA started this season, the

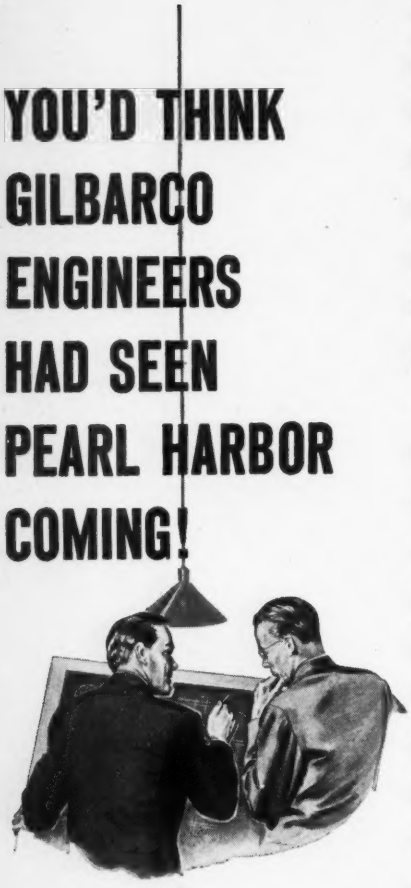
(Continued on page 48)

## Oilburner* and Building Permits

| | OILBURNERS | | | | DWELLINGS | | | |
|---|---|---|---|---|---|---|---|---|
| | November | | 11 MONTHS | | November | | 11 MONTHS | |
| | 1943 | 1942 | 1943 | 1942 | 1943 | 1942 | 1943 | 1942 |
| Albany, New York | 0 | 0 | 0 | 10 | .. | .. | .. | .. |
| Baltimore, Maryland | .. | .. | .. | .. | 71 | 16 | 1111 | 1326 |
| Binghamton, New York | .. | .. | .. | .. | 0 | 0 | 0 | 15 |
| Bloomfield, N. J. | .. | .. | .. | .. | 1 | 1 | 0 | 118 |
| Boston, Massachusetts | 46 | 170 | .. | .. | 1 | 8 | 23 | 178 |
| Bridgeport, Conn. | 10 | 11 | 21 | 201 | .. | .. | .. | .. |
| Buffalo, New York | .. | .. | .. | .. | 0 | 3 | .. | .. |
| Des Moines, Iowa | .. | .. | .. | .. | 1 | 1 | 11 | 531 |
| Detroit, Michigan | 0 | 0 | 0 | 662 | 385 | 593 | 4512 | 7288 |
| Elizabeth, N. J. | 1 | 1 | 7 | 52 | 0 | 0 | 54 | 19 |
| Freeport, New York | 5 | 0 | 10 | 55 | .. | .. | .. | .. |
| Greenwich, Conn. | .. | .. | .. | .. | 0 | 0 | 3 | 23 |
| Hackensack, N. J. | .. | .. | .. | .. | 0 | 0 | 0 | 40 |
| Hudson County, N. J. | 2 | 2 | 31 | 399 | .. | .. | .. | .. |
| Irvington, N. J. | 1 | 0 | 2 | 51 | 0 | 0 | 13 | 38 |
| Lynn, Massachusetts | .. | .. | .. | .. | 1 | 0 | 2 | 27 |
| Milwaukee, Wisc. | 1 | 1 | 7 | 198 | 80 | 62 | 404 | 650 |
| Minneapolis, Minn. | 14 | 11 | 92 | 354 | 1 | 4 | 3 | 376 |
| Morristown, N. J. | .. | .. | .. | .. | 0 | 0 | 0 | 6 |
| Mt. Vernon, New York | 4 | 2 | 24 | 83 | .. | .. | .. | .. |
| Newark, New Jersey | 7 | 1 | 17 | 178 | .. | .. | .. | .. |
| New Bedford, Mass. | 7 | 4 | 38 | 134 | .. | .. | .. | .. |
| New Haven, Conn. | 1 | 0 | 5 | 72 | .. | .. | .. | .. |
| New Orleans, La. | 1 | 2 | 7 | 30 | .. | .. | .. | .. |
| New Rochelle, N. Y. | 2 | 5 | 2 | 47 | 0 | 0 | 0 | 19 |
| Manhattan, Bronx, Rchd. | 6 | 0 | 55 | 737 | .. | .. | .. | .. |
| Norfolk, Virginia | 2 | 117 | 153 | 1143 | 0 | 122 | 183 | 1122 |
| Oakland, Calif. | 1 | 4 | 9 | 21 | .. | .. | .. | .. |
| Omaha, Nebraska | 17 | 2 | 53 | 272 | 54 | 0 | 99 | 298 |
| Orange, New Jersey | 0 | 1 | 1 | 23 | 0 | 0 | 2 | 14 |
| Passaic, New Jersey | 1 | 0 | 4 | 32 | .. | .. | .. | .. |
| Paterson, N. J. | 0 | 0 | 8 | 44 | 0 | 12 | 32 | 41 |
| Plainfield, N. J. | .. | .. | .. | .. | 0 | 1 | 18 | 52 |
| Portland, Maine | 2 | 2 | 7 | 67 | 2 | 15 | 60 | 110 |
| Portland, Oregon | 9 | 12 | 63 | 994 | 82 | 59 | 1510 | 1929 |
| Providence, R. I. | 4 | 0 | 5 | 201 | 0 | 0 | 0 | 40 |
| Reading, Penna. | .. | .. | .. | .. | 0 | 0 | 0 | 8 |
| Richmond, Virginia | 0 | 1 | 1 | 83 | 0 | 14 | 33 | 356 |
| Rochester, N. Y. | 0 | 4 | 6 | 187 | .. | .. | .. | .. |
| Rockville Center, N. Y. | 0 | 1 | 7 | 61 | 0 | 0 | 1 | 14 |
| Salem, Massachusetts | 4 | 0 | 5 | 19 | 0 | 0 | 0 | 9 |
| St. Louis, Missouri | 6 | 8 | 55 | 333 | 0 | 1 | 39 | 357 |
| St. Paul, Minnesota | 0 | 4 | 7 | 396 | 0 | 2 | 4 | 200 |
| Schenectady, N. Y. | 0 | 18 | 18 | 244 | .. | .. | .. | .. |
| Seattle, Washington | .. | .. | .. | .. | 183 | 33 | .. | .. |
| Springfield, Mass. | .. | .. | .. | .. | 2 | 6 | 272 | 500 |
| Stamford, Conn. | 6 | 2 | 8 | 54 | .. | .. | .. | .. |
| Syracuse, New York | .. | .. | .. | .. | 7 | 0 | .. | .. |
| Trenton, New Jersey | .. | .. | .. | .. | 43 | 0 | 183 | 2 |
| Utica, New York | .. | .. | .. | .. | 0 | 0 | 0 | 79 |
| Washington, D. C. | 1 | 9 | 36 | 885 | .. | .. | .. | .. |
| West Orange, N. J. | .. | .. | .. | .. | 0 | 0 | 0 | 23 |
| White Plains, N. Y. | 10 | 8 | 33 | 66 | 0 | 0 | 0 | 3 |
| Wilmington, Delaware | 1 | 4 | 4 | 108 | 6 | 0 | 518 | 13 |
| Worcester, Mass. | 16 | 0 | 38 | 221 | .. | .. | .. | .. |
| Yonkers, New York | 6 | 0 | .. | .. | .. | .. | .. | .. |
| *Totals* | 199 | 414 | 839 | 8717 | 920 | 953 | 9090 | 15824 |
| *Percent Change* | —51.9 | .. | —90.4 | .. | —3.5 | .. | —42.6 | .. |

*Permits are not total sales in each market since none are reported from suburban areas, which normally account for 20% to 60% of total sales in each market; nor are they an accurate index where enforcement is lax. Rightly used, however, they are a useful working index.

# YOU'D THINK GILBARCO ENGINEERS HAD SEEN PEARL HARBOR COMING!

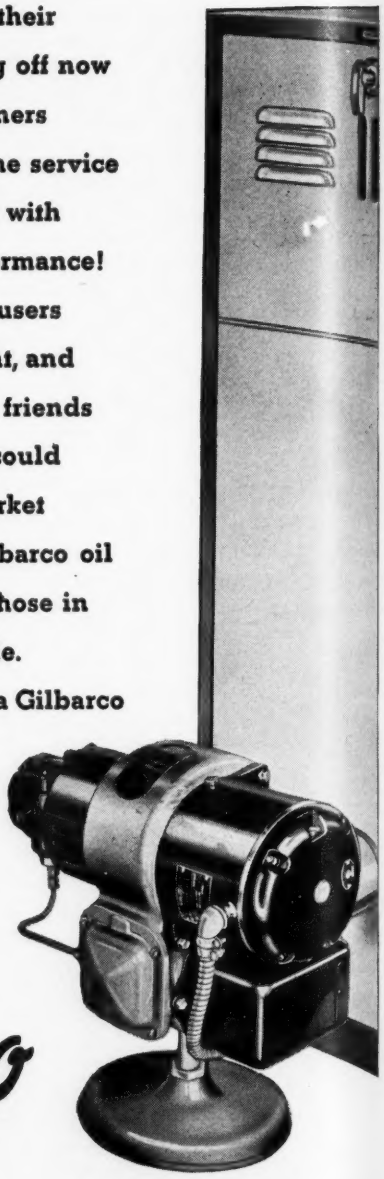


If you take a short-sighted view, maybe it isn't necessary to build so much quality into an oil burner. You can cut corners here and there, forget about precise machining, and still have an oil burner that will sell.

But Gilbarco engineers have never looked at it this way... and their foresight is certainly paying off now in the way Gilbarco oil burners have stood up under wartime service ...and are keeping right on with their economical high performance!

100,000 Gilbarco oil burner users are grateful for that foresight, and those users will be the best friends and references any dealer could have when the post-war market opens up, and the new Gilbarco oil burners — even finer than those in service today — are available.

Perhaps you'd like to have a Gilbarco franchise when that time comes so that you could take advantage of that good-will. Drop us a line, and let's talk it over!



Gilbarco

OIL BURNERS

GILBERT & BARKER MFG. COMPANY

West Springfield, Mass. · Toronto, Canada

Many years devoted to the manufacture of precision equipment have given us the "know how" when it comes to making float valves.

"DL" Float Valves have long enjoyed a fine reputation among space heater, water heater, and furnace manufacturers, for their ruggedness of construction, simplicity of design, and because of the company behind them.

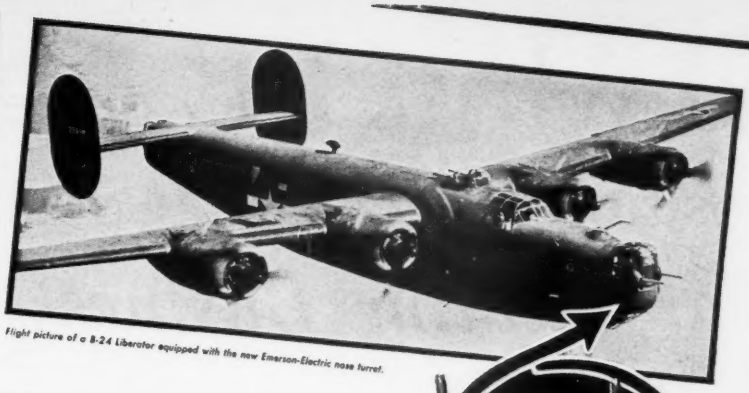
**DETROIT LUBRICATOR COMPANY** *General Offices: DETROIT 8, MICHIGAN*

Division of AMERICAN Radiator and "Standard" Sanitary Corporation

*Canadian Representatives*—RAILWAY AND ENGINEERING SPECIALTIES LIMITED, MONTREAL, TORONTO, WINNIPEG

**"DL" Heating and Refrigeration Controls • Engine Safety Controls • Safety Float Valves and Oil Burner Accessories • Radiator Valves and Balancing Fittings • Arco-Detroit Air and Vent Valves • "Detroit" Expansion Valves and Refrigeration Accessories • Air Filters • Stationary and Locomotive Lubricators**

WHEN IT'S OVER,
THERE'LL BE BUSINESS FOR YOU,
WITH Silent Sioux
● Since Pearl Harbor, we've been busy supplying oil burning heating units for vital war uses. But we've also been keeping an eye on the future, planning many improvements for better peacetime heating. When it's over, there'll be business . . . and plenty of it . . . for you, with the complete line of Silent Sioux heating equipment, including space heaters, air conditioning furnaces, furnace burners, hot water heaters, etc. For a priority on the Silent Sioux dealership in your community, write us to-day.
Silent Sioux
SILENT SIOUX OIL BURNER CORP.
ORANGE CITY, IOWA



Flight picture of a B-24 Liberator equipped with the new Emerson-Electric nose turret.

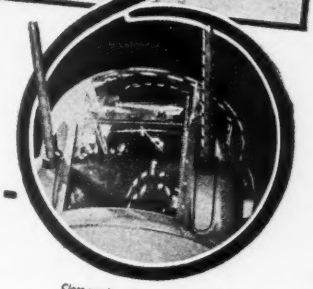
## Emerson-Electric Builds *New Fighting Power* For the Air Offensive ---

Now it can be told—the interesting story of the development of the new nose turret designed and manufactured by Emerson-Electric for B-24 Liberators!

It began when Emerson-Electric was given the assignment of building a turret having maximum fire power with proper visibility, safety and comfort for the gunner.

The model B-24 nose turret designed by Emerson-Electric engineers, having these characteristics, passed a series of critical Army tests and was released for production immediately.

In addition to this powerful new weapon, Emerson-Electric has been producing in large quantities, upper-deck and lower ball power-operated airplane gun turrets used on the B-17 Flying Fortress, top turrets for Navy Avenger Bombers, and also top turrets for Army medium two-motor bombers.



Close-up view of the new nose turret, equipped with two .50 cal. guns.

Emerson-Electric is continuing to pioneer in the development of new and more effective armament for the air offensive—for quicker Victory through air power.

**EMERSON-ELECTRIC AIRCRAFT MOTORS** are made for gun turret drives, hydraulic units, fuel pumps, actuators, winterizing units, communication systems—also with built-in gear and magnetic brake.

THE EMERSON ELECTRIC MANUFACTURING CO.
SAINT LOUIS • *Branches:* New York • Chicago • Detroit
Los Angeles • Davenport

Emerson-Electric is now engaged 100% in producing equipment for the armed forces of the United States.

EMERSON ELECTRIC

MOTORS • FANS • APPLIANCES

*A current Emerson-Electric advertisement in magazines of national circulation.*

# Bad News for Japs and Nazis...

... but good news for all who know the dependability of Emerson-Electric peacetime products. The precision manufacturing skill which, for 53 years, has characterized Emerson-Electric fans, motors and appliances, is now engaged 100% in vital war work—helping to speed the day of Victory.

Designing and producing a powerful new revolving nose gun turret for the B-24 Liberator Bomber is but one of the achievements for which Emerson-Electric was awarded the Army-Navy "E" and which recently earned a white star for the burgee.

THE EMERSON ELECTRIC MANUFACTURING CO.
SAINT LOUIS

*Branches:* New York • Chicago • Detroit • Davenport
Los Angeles

359

EMERSON ELECTRIC

MOTORS • FANS • APPLIANCES

fueloil & oil heat

# Read why G-E dealers will be in position to get a bigger share of *Post-War Heating Business*

POST-WAR demand for heating equipment—both for replacement and in new construction—promises to be great, as you know. And an important share of this biggest-in-history market will be available to G-E dealers.

Why? Because G-E dealers will have a powerful and *exclusive* sales advantage—derived from *General Electric research and wartime experience.*

For research is the mother of advancement, and General Electric's research years are long . . . its research facilities vast . . . its research staff skilled as few are in this field.

Out of such research will come the improved G-E heating units of tomorrow . . . easier to install, more compact, quieter, more efficient . . . designed to give the alert dealer opportunities for faster turn-over and bigger profits. *General Electric Company, Heating Division, Section 4481, Bloomfield, New Jersey.*

**THE FAMOUS DOWN-JET** . . . assuring more complete combustion, making more efficient use of every heat unit . . . was a research development that brought new comfort, convenience and economy to thousands of owners of pre-war General Electric heating equipment. Out of *current* research will come equally important dealer and owner advantages in the G-E heating units of the future.

☆ BUY WAR BONDS ☆

**GENERAL ELECTRIC**

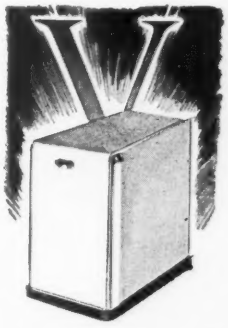
Hear the General Electric Radio Programs: The "G-E ALL-GIRL ORCHESTRA," Sundays, 10 P. M., EWT, NBC . . . "THE WORLD TODAY" News, Every Weekday, 6:45 P. M., EWT, CBS

# Secret weapon for post-war sales

Not so secret, either, but a potent force for service and satisfaction to the post-war buyers of Fitzgibbons steel boilers and air conditioners. It's all in the way Fitzgibbons met a war-time difficulty common to most manufacturers and made of it a valuable future sales factor.

You know how it was just after Pearl Harbor—sales personnel everywhere became pretty superfluous through no fault of their own. Fitzgibbons representatives were no exception — could have sold plenty of boilers, but we couldn't build them and make tanks too. So . . .

Instead of permitting its valuable, hand-picked sales organization to break up, Fitzgibbons set up a skeleton engineering force, for local maintenance service principally, then brought the key sales people right into the Fitzgibbons production end at the plant. Not just in any stop-gap job, but in positions vitally important to the Fitzgibbons production of fighting equipment as well as of steel boilers for Uncle Sam. One of these men is General Plant Manager. Another is his Assistant. Another is Personnel Manager. Still another, Superintendent of Navy Fabricating Division. Others are Chief Field Expediter, Navy Inspector, Traffic Manager, etc., etc., all down the line, where the driving personalities of these former top-notch, line-bucking sales representatives are given full play in getting things done, getting fighting equipment on the firing line, getting the war victoriously over.

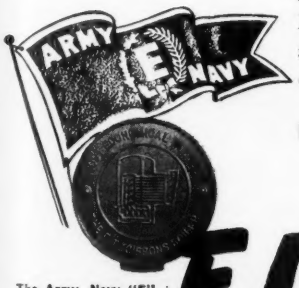


It has worked beautifully. Last October Fitzgibbons was awarded the Army-Navy "E". But that isn't all of the story—

When the war is over, many of these able men will go back to sales representation, armed with new, sound experience in Fitzgibbons production methods, Fitzgibbons engineering, Fitzgibbons traditions in excellence of workmanship, as developed through fifty-eight continuous years of steel boiler building.

Will this experience, when applied in sales representation, be valuable to purchasers of Fitzgibbons steel boilers and conditioners? Most assuredly it will — highly valuable. These men will bring intimate knowledge to their contacts. It will be almost as good as bringing a Fitzgibbons prospect to the plant, showing him how carefully Fitzgibbons products are built, and how they perform under test. There is no finer way to serve Fitzgibbons prospective and established customers — and no finer group of men to render this service.

**BUY**
**U. S. WAR BONDS**
**and STAMPS**




The Army-Navy "E" flag, emblem of production excellence, flies proudly over the Fitzgibbons plant.

**FITZGIBBONS BOILER COMPANY, INC. • 101 PARK AVE., NEW YORK 17, N. Y.**
**Works: Oswego, N. Y. • *Branches in Principal Cities***

# FITZGIBBONS

**STEEL HEATING BOILERS SINCE 1886**

fueloil & oil heat

# HONEYWELL

# *Announces*

# MODUFLOW

**MODUFLOW Control Systems will be a powerful post-war sales tool . . . Provides continuous heat flow at exact temperatures needed . . . Used commercially many years . . . Will be available for post-war homes**

KEEPING AHEAD of progress is a habit with Minneapolis-Honeywell. Announcement of the Moduflow Control System gives the automatic heating trade an additional opportunity to participate in the post-war market. The Moduflow Control System will revolutionize post-war home heating. It will be a powerful sales tool in the hands of automatic heating engineers and dealers and will lead to the sale of additional automatic heating equipment.

*LISTEN . . . Blue Jacket Choir, with Danny O'Neil, from Great Lakes Naval Training Station, Columbia coast-to-coast network, every Sunday morning 11:05 to 11:30 Eastern War Ti*

## *Here Is What Moduflow Does!*

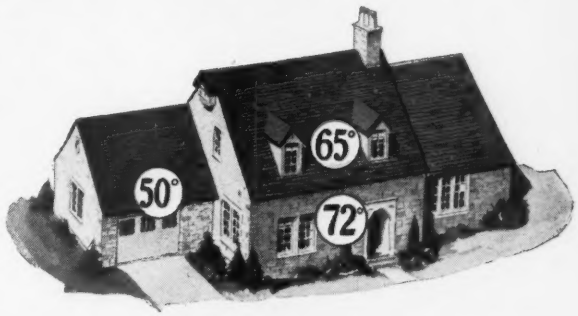
THE OWNER of every home, large or small, old or new, as well as every operator of a commercial building, is a prospect for the Moduflow Control System, because it eliminates the glaring fault of present day automatic heating—intermittent delivery of heat. Instead, Moduflow, as its name implies, provides a continuous flow of heat at exactly the temperature required to offset heat losses and to maintain room temperatures at the desired level. It does away with the alternate periods of hot and then cold radiators or registers and thus prevents stratification, drafts, overheating and underheating. Also, the Moduflow Sectional Control System enables home owners to maintain different sections or rooms at varying comfort or economy temperature levels, further eliminating fuel waste. Living quarters, for example, may be kept at 72; kitchens and bedrooms at 65; attached garage at 40 to 50; nurseries at 75. Most existing homes, however, to lend themselves to this sectionalized or zone heating, will require some change in the piping or duct work.

## *Here Is How Moduflow Does It!*

THE PRINCIPLES of the Moduflow Control System are simple, and, in fact, not new. Actually, Minneapolis-Honeywell engineers have applied them to commercial buildings for 10 years or more. Only recently, however, has Moduflow been adapted to homes. Exhaustive tests have proved both its economy and comfort.

As stated before, the Moduflow System provides a continuous flow of modulated heat into each room. This is accomplished by maintaining boiler or furnace bonnet temperatures at a fixed level. By automatically mixing heat from this reservoir with return water or air to exactly the temperature called for, and continuously circulating this mixture through the heating system, the room thermostat is constantly kept satisfied without overheating. In the case of steam heat, only enough steam to satisfy the thermostat is circulated.

The cost of the Moduflow System for existing homes is surprisingly low—actually no more than that of a modern washing machine. Fuel savings alone will easily offset this expense. In new homes, it is even less. It is easy to see why the Moduflow System will revolutionize post-war heating. Minneapolis-Honeywell Regulator Company, 2920 Fourth Avenue South, Minneapolis 8, Minnesota. Branches and distributing offices in all principal cities.




*New post-war homes can be sectionalized or zoned so that the Moduflow System will maintain rooms or sections at various comfort or economy temperatures.*

## *Personalized Apartment Control*

The post-war apartment will permit each tenant to maintain his temperature to his own liking—or even individual sections of it may be kept at various comfort or economy levels with the Moduflow System.

"Moduflow" is now being introduced through the radio and general magazines. Through these mediums a non-technical booklet is being distributed to the public. A little later a technical booklet will be ready for the trade.

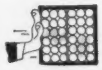
MINNEAPOLIS

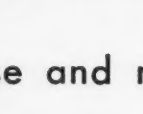
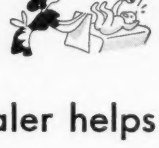
Honeywell

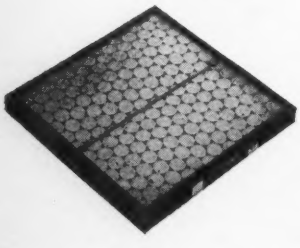
TEMPERATURE CONTROLS

# How to find extra profits without extra clerks

With salespeople scarcer than the well-known hen's teeth , and with merchandise and materials doing the vanishing act

, you can still keep the cash register from getting rusty, by pushing  this profitable repeat item that's quickly available—DUST-STOP* AIR FILTERS.

Here's the story  : National magazine advertising is telling owners of forced-warm-air furnaces the fuel-saving advantages of changing  their air filters. Now, with the aid of DUST-STOP's free dealer helps you step in and cash in .



YOU GET attractive folders to mail to all prospects. You get follow-up post cards . . . newspaper-ad mats . . . radio scripts to use on your local station . . . furnace reminder labels . . . window and counter displays.

Also you receive a display manual illustrated with photos and diagrams showing how to make displays that pay.

In addition you get a catalog of filter sizes. It tells you how many and what size filters are used in almost all makes of forced-warm-air furnaces. Over-the-counter and telephone orders are easy to handle with the quick reference book.

This sales plan has been rightly called "Pulling Profits out of the Air." Ask your Dust-Stop distributor about it today, or write: *Owens-Corning Fiberglas Corporation, Toledo 1, Ohio. In Canada, Fiberglas Canada, Ltd., Oshawa, Ontario.*

**FIBERGLAS* DUSTOP* AIR FILTERS**

*T. M. Reg. U. S. Pat. Off.

## BRIEFLY TOLD:

The Timken-Detroit Axle Company has won for the second time the Army-Navy Production Award for meritorious services on the production front. The award was accompanied by congratulations from Under Secretary of War Robert P. Patterson who said, "You may well be proud of your achievement." All three Timken plants received the citation and star. Timken is the nation's largest supplier of Axles, Brakes and Transfer Cases for the Armed Forces. Although Timken military shipments were at high levels early in 1940, they have been constantly increased until today they are more than 800% in excess of 1940 shipments.

★

TSA has more dealers today than at any other time in its history. Another sure sign of the profit value of the Timken franchise.

★

More than ¾-million helpful pieces of literature have been mailed to Timken users during 1943 (we'll mail you sample copies on request). Timken's recent 16-page booklet on how to keep equipment in good condition and reduce the need for service, mailed free to all Timken users, has brought a flood of letters of appreciation.

★

Samples of a new correspondence sticker are in the mails to all Timken Dealers. The sticker contains the welcome message, *"After Victory — plenty of all fuels for heating homes automatically at reasonable costs."* Encouraging news on postwar fuel oil supplies, backed up by expert opinion, will be released shortly.

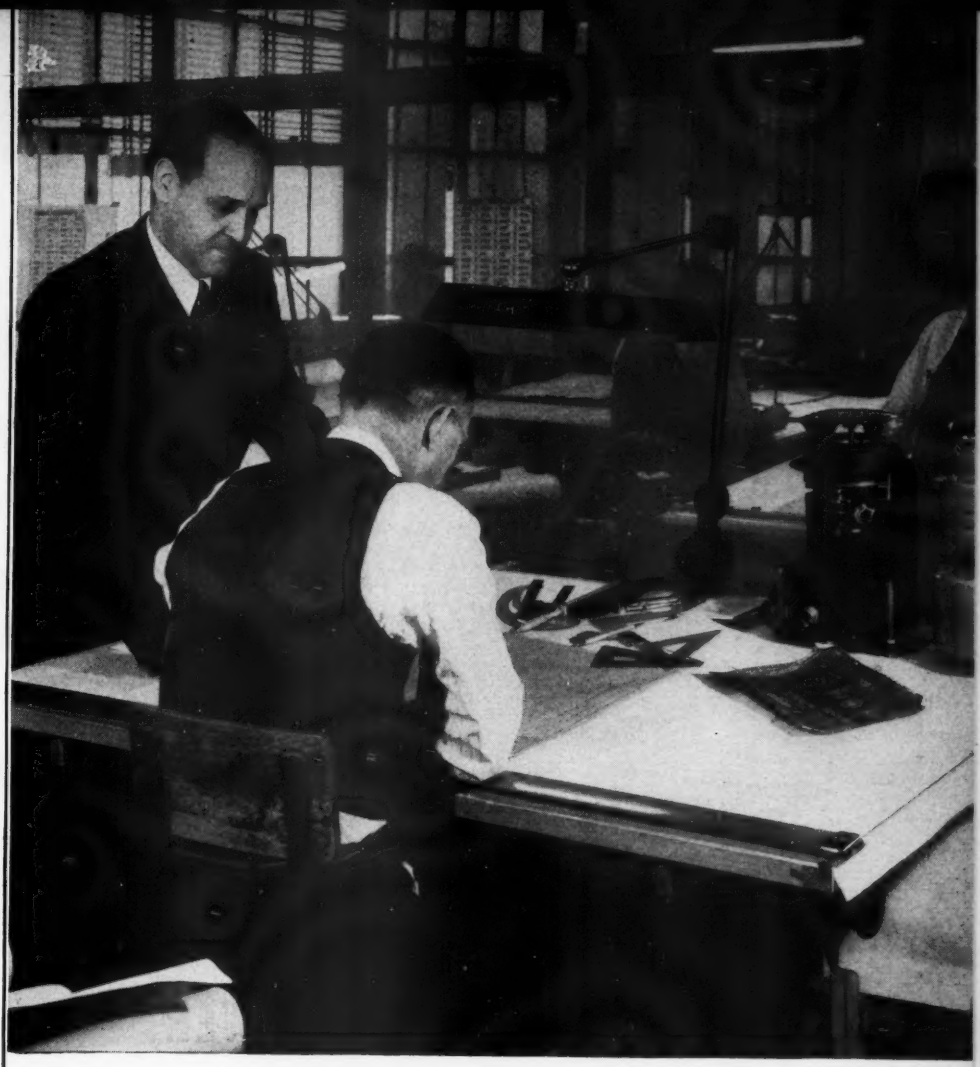
★

TSA factory executives are burning the midnight oil on 1944 advertising plans. The new program will be bigger and better than ever. All the details will be announced in a forthcoming issue of Timken Heat* (Timken's magazine for dealers and their employees).

★

**We'd like to send you sample copies. Please write on your letterhead and mention this ad.*

ARMY E NAVY
For Production
"Well Done"



# For better business—

# A BETTER PRODUCT!

We're proud of the profit records made by Timken Silent Automatic Dealers. Timken Dealers, as a group, make more money year after year than any other group of dealers in the oil heating industry.

We've helped dealers achieve this goal with strong magazine, newspaper and direct mail advertising, close personal cooperation, and a wide range of carefully prepared dealer sales helps, but underlying it all is the firm foundation of a *better product.*

A better product insures greater user satisfaction, more user good will, which in turn guarantees more sales and greater profits to Timken dealers.

We're working *now* with only one thought in mind—building still better products to give still greater user satisfaction in the postwar era.

After Victory we'll be ready, not only with improved heating and air conditioning equipment, but also with other new products for the home. You can't afford to miss this opportunity to tie-up with Timken. Write us today for details of the new Timken Dealer Franchise.

# TIMKEN *Silent Automatic*

**Quality Home Appliances—for Comfort, Convenience and Economy**

Division of THE TIMKEN-DETROIT AXLE COMPANY, Detroit 32, Michigan

## THIS, TOO, IS YORK HEAT

MANY of our boys are far from the comforts of home, but not too far for an occasional hot shower. Keeping them and their clothing as clean and sanitary as possible is one of York's many war-time jobs. Portable showers and laundries, fired by York Oil-Burners, are busy continuously.

Mounted on truck-trailers, they follow our flexible, fast-moving, mechanized army across rough, battle-scarred country. The oil-burners, like the other equipment, must be light in weight, yet able to deliver dependable service in spite of rough going.

Meeting these requirements has meant a new kind of York Heat. You'll find it in the homes of tomorrow, delivering new economies in fuel-consumption . . . new cold-weather living comfort . . . and an even higher degree of foolproof, automatic operation. Be sure to look into this new York Heat as soon as the war is over.

★ ★ ★

Buy the things you want, tomorrow—buy bonds today.

YORK HEAT

Division of
YORK-SHIPLEY, INC.
York, Pa.

# THE SHOWER IS TURNED ON

Millions of messages on York Heat are being sprinkled over the United States and Canada every month. Hundreds of prospects right in your own home territory are being warmed-up to the advantages York Heat will have to offer when the flood of Deferred Demand is turned loose.

York Heat *will* have plenty of advantages, too. New standards of performance and new economies have been engineered into York Oil-Burners to meet the rigid requirements of war-time conditions. New designing now being worked out on the drawing-boards will incorporate these changes into the *heat of tomorrow* for the *homes of tomorrow*.

**YORK HEAT**

***Division of* YORK-SHIPLEY, INC., YORK, PA.**

## U. S. BULLETIN ★ JANUARY

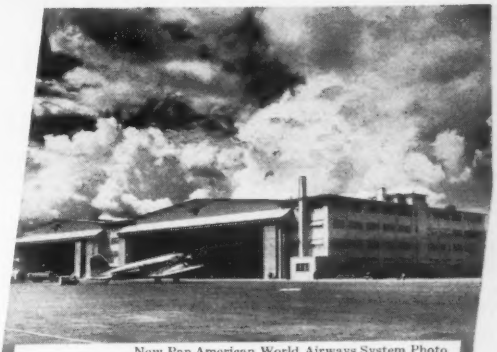
# "AN OUNCE OF PREVENTION" NOW

*will help with tomorrow's problems*

**Urge your customers** to do the little things in boiler and heating plant care that will guard against breakdowns, with resulting need for replacement and repair parts.

**In this way** all available equipment can be used for really critical needs. You'll render a genuine service to your customers and yourself.

**We in turn** — U. S. Radiator and Pacific Steel Boiler Division — will do everything we can to keep up with essential requirements. Let's work together to do the best job possible under present conditions . . . to build good will for the future.



New Pan American World Airways System Photo

### U. S. RADIATOR IN THE WAR

New Pan American World Airways hangar and offices at Miami, in which U. S. Radiator heating equipment has been installed. Largest structure of its kind in the country. Can service 12 to 18 giant Clippers a day.

One United States Radiator Corporation plant is in production on magnesium castings for U. S. war planes. Pacific Boiler Division is building pre-fabricated ship sections.

US RADIANT WARMTH

Member The Institute of Boiler and Radiator Manufacturers

## UNITED STATES RADIATOR CORPORATION

AND

## PACIFIC STEEL BOILER DIVISION

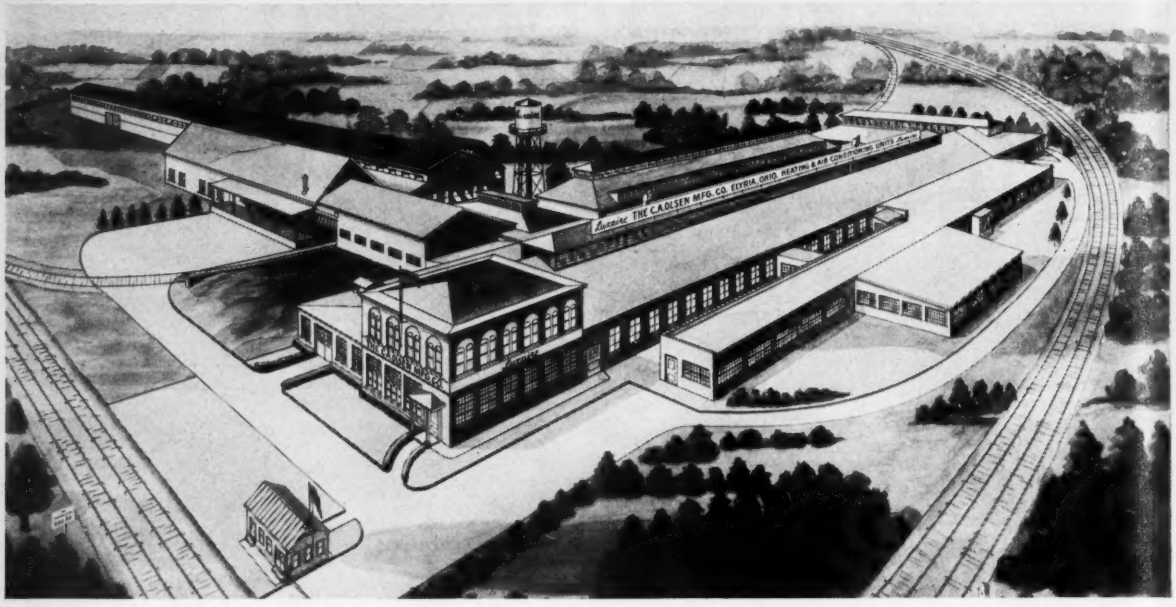
Detroit, Michigan · Branches and Sales Offices in Principal Cities

*Manufacturing Plants At:*

Bristol, Pa. · Detroit, Mich. · Dunkirk, N. Y. · Edwardsville, Ill. · Geneva, N. Y. · Waukegan, Ill. · W. Newton, Pa.

fuel oil & oil heat

# NEW-GREATER-Luxaire PLANT




THE new, greater Luxaire plant is the outgrowth of our country's tremendous war production program. To carry on our commitments in the production of vital war materials, the Luxaire plant, equipment, and facilities had to be greatly increased.

To meet this emergency, Luxaire in the past year, has more than doubled the size of its manufacturing plant, located in Elyria, Ohio, at the junction of the New York Central and Baltimore & Ohio railroads.

New and modern steel fabricating equipment has been acquired, so that material required by our fighting forces can be produced in less time and in greater volume.

When victory is won, the invaluable experience gained in fabricating weapons of war will be applied to the production of Luxaire Warm Air Furnace and Air Conditioning Units — steel and cast iron, for coal, gas and oil—that will set a new high standard in design and construction.

**THE C. A. OLSEN MANUFACTURING COMPANY**
ELYRIA, OHIO

Luxaire

**WARM AIR FURNACES**
**AIR CONDITIONING UNITS**
**FOR COAL...GAS...OIL**

**THE COMPLETE PRE-WAR LINE OF LUXAIRE WARM AIR HEATING & AIR CONDITIONING UNITS**

Series 600 Coal Fired Steel Furnace | Series C Coal Fired Cast Furnace | Series 700 Coal Fired Gravity Furnace | Series AC-700 Coal Fired Air Conditioning Unit | Series A Gas Fired Air Conditioning Unit | Series G Gas Fired Gravity Unit | Series H Gas Utility Air Conditioning Unit | Series 8000 Oil Burning Air Conditioning Unit

# MODERN METHODS IN MANUFACTURING MONCRIEF

From the time one of the sandslinger moulding machines "rams" an ashpit, firepot, feed section or radiator mould, until the complete furnace rolls down the conveyer line in the final assembly department, modern methods and modern equipment are used in the manufacture of Moncrief Furnaces.

Similar efficient methods and machinery are used in the manufacture of Moncrief Furnace Pipe and Fittings.

The experience gained during the past 50 years, plus the excellent facilities of the huge Moncrief plants at Medina, Ohio, give the products of this old and favorably known organization the modern features and advantages that are wanted in the 1944 market.

New, modern manufacturing equipment is being added now and more will be added later as quickly as conditions permit.

For no effort will be spared to maintain Moncrief manufacturing methods fully as modern as future furnace standards dictate.

When better heating equipment. furnace pipe and fittings are built, Moncrief will build them.

**WARM AIR FURNACES**
**FURNACE PIPE AND FITTINGS**

**MONCRIEF**
SINCE 1895

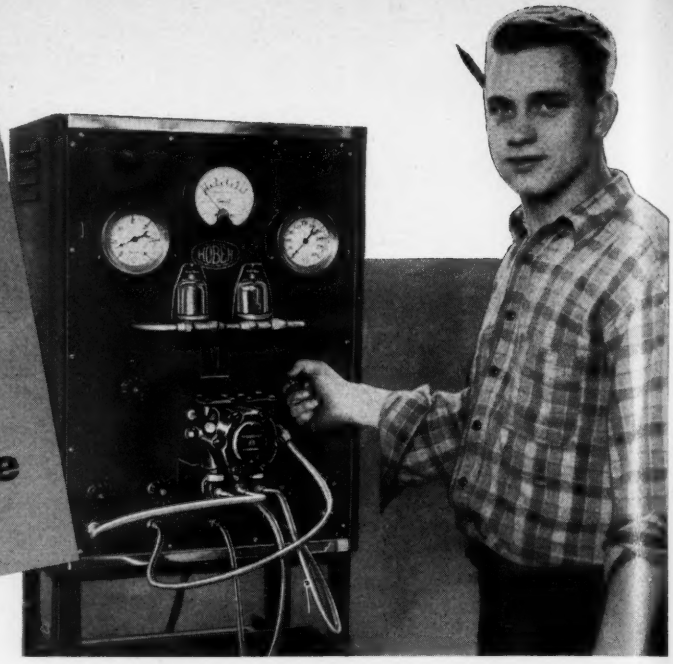
**AIR CONDITIONING SYSTEMS FOR COAL . . . GAS . . . OIL**

## THE HENRY FURNACE CO. MEDINA, OHIO

**THE PRE-WAR MONCRIEF LINE OF FURNACES AND AIR CONDITIONING UNITS WITH A BACKGROUND OF ALMOST 50 YEARS**

Series C Coal Fired Cast Furnace | Series E Coal Fired Steel Furnace | Series C Coal Fired Gravity Furnace | Series S Coal Fired Air Conditioning Unit | Series G Gas Fired Air Conditioning Unit | Series GG Gas Fired Gravity Furnace | Series HBG Gas Fired Utility Air Conditioning Unit | Ser'es Special Oil Fired Air Conditioning Unit

# Modern Equipment Helps Webster Electric Service



WEBSTER Electric Authorized Service Stations must maintain the most modern testing facilities—not only to meet the high factory test standards, but also to stand the strain of war-time service.

Here shown is the modern equipment of the Cronin Supply Company, Cambridge, Massachusetts, a Webster Authorized Service Station where five men and one girl have been taken into the armed forces. Regardless, Edward T. Isaac proudly exclaims, "We have taken care of all service problems." This statement is typical of the kind of service dealers have been accustomed to receive from these fine Webster Electric authorized service organizations.

So again Webster Electric service has been ready and able to meet an emergency of war with continued flow of parts and replacement units, trained expert repair in the field, and modern equipment to assure both rapid and thorough testing.

Here at Webster Electric we are proud to see the advantages taken by the oil burner dealer in his use of Webster Electric Authorized Service Stations. It is a real and definite part in fighting the war—keeping homes economically comfortable with automatic oil heat.

Through our Sales Representatives and Service Stations listed here, we do our best to see that every service job is done well.

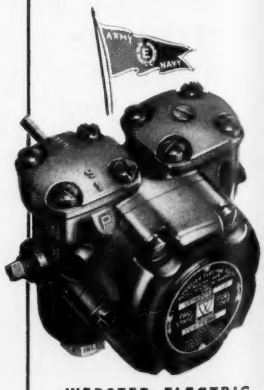
**WEBSTER ELECTRIC COMPANY, Racine, Wisconsin, U. S. A., Established 1909. Export Dept.: 13 E. 40th St., New York (16), N. Y. Cable Address: "ARLAB" New York City.**

**WEBSTER ELECTRIC SERVICE STATIONS AND SALES REPRESENTATIVES**

*Ignition Transformers, Fuel Units, and Parts*

| | | | |
|---|---|---|---|
| California, Los Angeles | Garland-Affolter Engr. Corporation | 124 W. 4th Street | Sales Representative |
| California, San Francisco | Garland-Affolter Engr. Corporation | Rialto Building | Sales Representative |
| Connecticut, West Hartford | Bell Pump Service Company | 100 Park Road | Service Station |
| Illinois, Chicago | Braun Bros. Heating Supply Company | 3146 W. Chicago Avenue | Service Station |
| Illinois, Winnetka | Braun Bros. Heating Supply Company | 812 Oak Street | Service Station |
| Iowa, Des Moines | Delavan Engineering Company | 414—12th Street | Sales Representative |
| Maryland, Baltimore | R. E. Michel Company | 1011 Greenmount Avenue | Service Station |
| Massachusetts, Cambridge | Cronin Supply Company | 60 Broadway | Service Station |
| Massachusetts, Malden | E. L. Kimball Company | 25 Lynde Street | Service Station |
| Massachusetts, Waltham | Cronin Supply Company | 157 High Street | Service Station |
| Massachusetts, Wollaston | W. S. Plummer | 109 Lincoln Avenue | Service Station |
| Michigan, Detroit | Wm. G. Boales Company | 6429 Hamilton Avenue | Service Station |
| Minnesota, St. Paul | Thermal Company, Inc. | 2448 University Avenue | Service Station |
| Missouri, St. Louis | Brass & Copper Sales Company | 2817 Laclede Avenue | Service Station |
| New Jersey, Elizabeth | Certified Fuel Unit Service Company | 600 Spring Street | Service Station |
| New York, Albany | Certified Fuel Unit Service Company | 1018 Central Avenue | Service Station |
| New York, Brooklyn | Eveready Specialties Company | 1724 Flatbush Avenue | Service Station |
| New York, Brooklyn | The Capson Company | 106 Rogers Avenue | Service Station |
| New York, Jamaica | Sid Harvey, Incorporated | 138-76 Queen Boulevard | Service Station |
| New York, Valley Stream | Sid Harvey, Incorporated | 104 E. Mineola Avenue | Service Station |
| Oregon, Portland | Garland-Affolter Engr. Corporation | 1233 N. W. 12th Avenue | Sales Representative |
| Pennsylvania, Philadelphia | Certified Fuel Unit Service Company | 3412-14 W. Allegheny Ave. | Service Station |
| Rhode Island, Providence | Providence Plumbing Supply Company | 47 Pine Street | Service Station |
| Washington, Seattle | Garland-Affolter Engr. Corporation | 532 First Avenue South | Sales Representative |

BUY MORE WAR BONDS



WEBSTER ELECTRIC "TYPE T" FUEL UNIT

# WEBSTER ELECTRIC

*"Where Quality is a Responsibility and Fair Dealing an Obligation"*

# CONCO

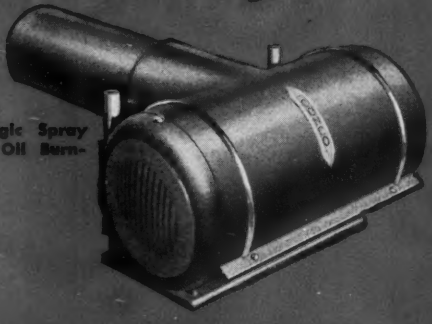
ARMY E NAVY

## TIE TO A NAME WITH A FUTURE

CONCO Gas-Fired Gravity and Forced Air Furnaces.

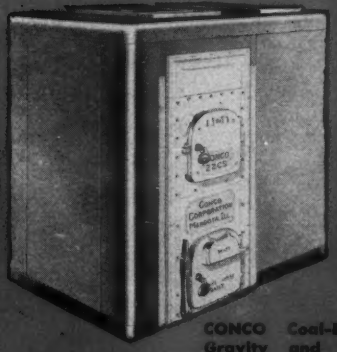
CONCO Oil-Fired Winter Aircondition-er. Covering domestic requirements.

CONCO — attractive, modern, time-tested Domestic Stokers.



CONCO Magic Spray Conversion Oil Burn-er.

*Peace will bring you amazing new sales opportunities. And CONCO will bring you improved, depend-able heating units, based on these tried-and-proven CONCO designs and CONCO features. As in the past CONCO will again stand for modern, dependable products, and good profits for their dealers.*



CONCO Coal-Burning Gravity and Forced Air Heating Units.

— A size and type for every heating requirement —

**CONCO DIVISION OF H. D. CONKEY & COMPANY, MENDOTA, ILL.**

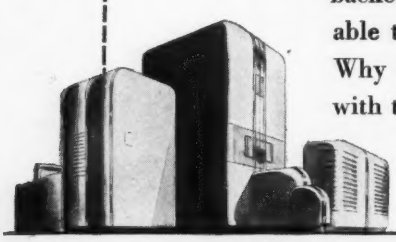
*SPECIAL MOTORS DESIGNED TO FIT THE APPLICATION

## PLANTING TIME FOR THINGS TO COME

From today's drawing boards will come many new products and improvements that will mean better living.

If the seeds you're planting for tomorrow call for precision built fractional HP motors to meet specific operating conditions and performance requirements, then you should solve your motor problem while the product is in the design stages.

The designing and building of special fractional HP motors is the specialized business of Holtzer-Cabot. Our engineers, backed by 68 years of motor design, are available to help you with your motor problems. Why not talk over your motor requirements with them?



**THE HOLTZER-CABOT ELECTRIC COMPANY**

*Designers and Builders of Special Fractional HP Motors and Electrical Apparatus*

129 AMORY ST., BOSTON, MASS., CHICAGO, ILL., NEW YORK, N. Y., PHILADELPHIA, PA.

**Pan American World Airway System's new Land Plane Base and Hangar at Miami, Florida**

Another outstanding building that is **"HEATED *by* JOHNSON OIL BURNERS"**

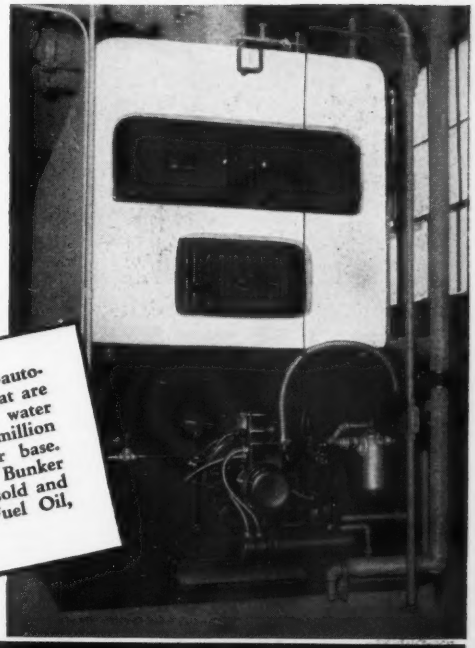
*With all the leading Heaters in America at their disposal...*

# PAN AMERICAN AIRWAYS chose JOHNSON OIL BURNERS!

This sale was made easier by Johnson's 40-year-old reputation for building fine burners. Hundreds of famous buildings . . . and thousands that are less conspicuous . . . are powered or heated by Johnson-built equipment.

The economy records and the dependability of Johnson Burners are easily provable. They offer indisputable evidence of fine engineering and excellent workmanship . . . the finest sales help that any distributor could desire.

If you are interested in a Johnson Oil Burner dealership, we will gladly discuss it with you. Or if you have a prospective buyer who can secure an approved order let us help you meet his requirements. Though 95% of our present output is being taken for military or war-essential projects, we probably can supply the equipment you need if you will let us know, in detail.

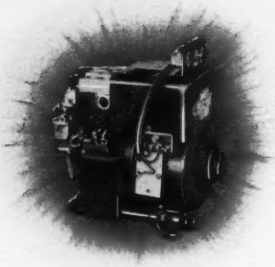


This is one of the two fully-automatic Johnson Burners that are supplying heat and hot water for Pan American's new "million dollar" hangar and air base. They use CSG No. 6 or Bunker C fuel oil. They were sold and installed by Florida Fuel Oil, Inc. of Miami.

## S. T. JOHNSON CO.

940 Arlington Avenue, Oakland 8, Calif. 401 No. Broad Street, Philadelphia 8, Pa.

# Delco-Light rides the Alligator, too!



DELCO-LIGHT ENGINE GENERATOR now in use on the Alligator.

Delco Appliance War Products include Antiaircraft Gun Directors, Machine Gun Mounts, Indicating Motors, Delco-Light Engine Generators, Aircraft Magnetos, a host of Small Motors for specialized war tasks, and Control Instruments such as Aneroids and Aneroid Switches, Solenoid Shifters, and Overspeed Cut-Outs.

The Marine Corps' Alligator amphibious tank, while recently announced, is no military secret to Japs in the Solomon Islands. They have been meeting it, disastrously, on beaches and in swamps and jungles.

Like the Marines who man it, the Alligator is soldier-and-sailor, too—a fighter on land or water that goes "all out" against its enemies.

Using its starting motor, horns, lights, searchlight, windshield wiper, etc., the Alligator naturally demands a heavy supply of electric current. By reinforcing current supply in the Alligator, as in various other tanks, Delco-Light Engine Generators are helping to hasten Axis defeat.

## There's a Great Day Coming!

*"Victory Is Our Business"* for the duration, but when peace comes, our ever increasing knowledge and resources will bring you finer Delco Appliances to meet home and farm demands.

**DELCO APPLIANCE**

ROCHESTER, N. Y.

**DIVISION of GENERAL MOTORS**

PEACETIME PRODUCTS: DELCO AUTOMATIC HEAT (OIL-GAS-COAL) DELCO LIGHT AND POWER PLANTS, DELCO-LIGHT BATTERIES, DELCO WATER SYSTEMS, AND DELCO APPLIANCE MOTORS.

**DON'T LET UP ON THE HOME FRONT**

The Axis is watching us for signs of overconfidence. Don't let up—keep going "all out" with your dollars to bring our boys home sooner.

**BUY MORE AND *MORE* WAR BONDS!**

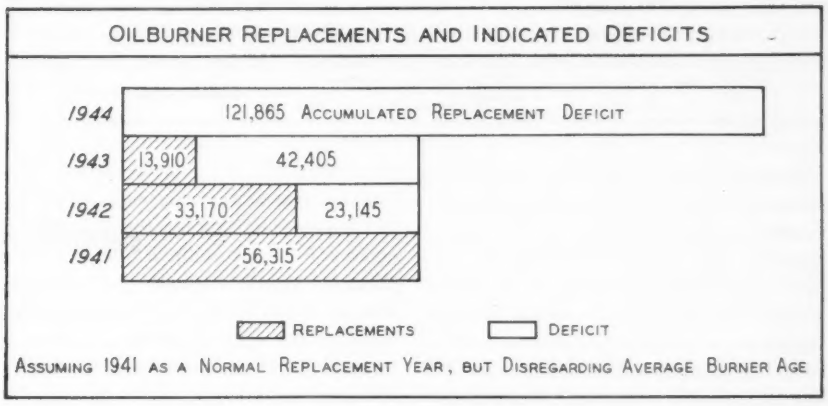
# Industry Scrapes Bottom

## Equipment Sales Hit All-Time Lows

WAR DEALT THE OILBURNER industry the hardest blow in its recorded history in 1943, when total sales volume of the domestic burner industry dropped to 33,445 burners and units, and new installations fell to 2,120. The industry showed a net loss of 1,835 installations during the year. Commercial and industrial burner sales totalled 44,470 burners, but the industry lost 8,075 commercial installations during the year, or less than 3% of all heavy oil installations.

Domestic burner sales to government and war agencies amounted to 17,415, or 72.1% of the year's total. Replacements of old burners worn out or broken beyond repair took 13,910 burners and units, or 41.6%, and new installations of 2,120 demanded only 6.3%.

There were 17,965 domestic installations converted to coal or other fuels during the year, and 82,040 conversions in 1942. But this year 14,010 of these people reinstalled their oilburners, making the net conversion loss for the year 3,955 installations, and the total conversion loss for the two years 85,995 installations. The reinstallation figure of 14,010 is arrived at from field reports, and will be much higher than indicated by applications approved by PAW or the fueloil rations reissued by local boards. Most of those who converted did not turn in their fueloil ration coupons at their local boards, and rations this season were reissued to all former ration holders who applied. As a result, thousands of people who converted from oil still hold coupons for fueloil, and are reconverting as the coal supply becomes tighter, and oil appears to be more plentiful. Such reconversions are being made without the permission of any government body. It is possible that the first months of 1944 will see many more of these reconversions than in all of 1943.




Replacements of 13,910 during 1943 do not represent all the burners that normally would go into this market. Under pressure to convert early in the year, many burners that normally would have been replaced were converted. Replacements were further curtailed by the difficulty of obtaining burners. The public's desire to conserve and the lack of promotional replacement sales on the part of the industry held down the number of burners used for replacements. In 1942 there were 33,244 replacements, or 2.4 times as many as in 1943. Older equipment, patched beyond its normal life expectancy, must soon be replaced in much greater volume.

Manufacturers' shipments of domestic oilburners during the year totalled 27,645 burners and units, and 5,800 were used from dealer stocks. Manufacturers' 1943 shipments supplied less than two-thirds of the domestic burners used by dealers during the year. Another 4% of the burners dealers handled in 1943, or about 650, were second-hand burners that had been reconditioned and sold as replacement jobs. These used burners are not considered in these calculations.

TABLE 1

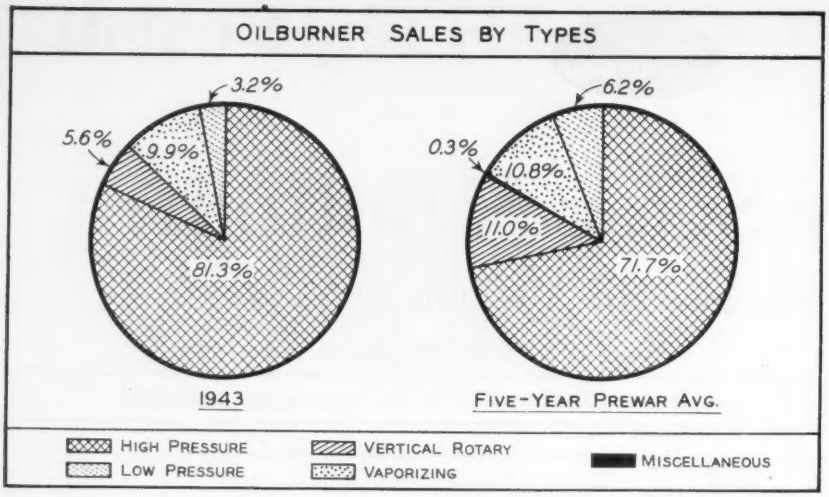
### Domestic Conversion Burners and Units

| *Sales* | *Retail Value* | *Factory Value* | *Year* | *No. in Use (End of Year)* |
|---|---|---|---|---|
| 150,510 | $55,342,500 | ..... | 1935 | 1,152,125 |
| 220,075 | 74,054,700 | ..... | 1936 | 1,340,675 |
| 210,740 | 69,265,100 | $22,238,200 | 1937 | 1,530,545 |
| 179,360 | 54,583,900 | 18,292,900 | 1938 | 1,667,745 |
| 236,140 | 66,520,400 | 23,352,200 | 1939 | 1,862,330 |
| 302,210 | 89,548,800 | 32,273,600 | 1940 | 2,135,125 |
| 333,250 | 113,546,400 | 41,931,800 | 1941 | 2,402,060 |
| 99,514 | 29,871,600 | 14,067,900 | 1942 | 2,386,290 |
| 33,445 | 5,283,300 | 5,431,000 | 1943 | 2,384,455 |

TABLE 2

### Domestic Conversion Oilburners

| *Sales* | *Retail Value* | *Factory Value* | *Year* | *No. in Use (End of Year)* |
|---|---|---|---|---|
| 136,825 | $43,373,500 | $13,408,900 | 1935 | 1,115,125 |
| 197,430 | 59,229,000 | 18,558,400 | 1936 | 1,281,305 |
| 184,920 | 54,181,600 | 15,903,100 | 1937 | 1,446,295 |
| 153,850 | 40,462,600 | 12,154,200 | 1938 | 1,559,675 |
| 200,020 | 48,004,800 | 15,601,600 | 1939 | 1,719,940 |
| 238,845 | 55,645,900 | 18,152,200 | 1940 | 1,933,605 |
| 237,965 | 59,490,200 | 19,275,200 | 1941 | 2,113,160 |
| 71,658 | 16,552,700 | 6,090,900 | 1942 | 2,073,260 |
| 21,363 | 1,885,800 | 1,837,200 | 1943 | 2,065,465 |




For the second consecutive year there were fewer domestic burners operating at the end of the year than at the start. Partially offsetting the conversion loss of 3,955 installations were the 2,120 new installations made mostly outside the rationed area, but this net loss of 1,835 brings the total burners and units operating to 2,384,455 from the 2,386,290 operating at the first of the year, as shown in Table 1. The easing of acute fueloil shortages in the better oilburner markets which has resulted in the lifting of forced conversions, and which has eased customers' minds, probably will have a marked effect on the trend of domestic burners in use. Barring unforeseen crises, there is little probability that the wartime trend will continue into the future.

Oil still is the most popular automatic heating fuel, though both oil and gas lost ground slightly in favor of stokers. Oil's 2,384,455 installations represent 53.7% of all automatic heating at the end of 1943, instead of 53.9% at the end of 1942. Gas has 1,101,300 domestic heating installations, or 24.8% of the total, against 24.9% a year ago. Stokers operating increased to 955,450, or 21.5% of the total, contrasted with 21.2% last year.

### Domestic Burner Types

Domestic size burners and units in 1943 furthered the trend toward the high pressure type of equipment, though this should not be construed as significant. It is more likely to be due to the larger number of high pressure burners and units in manufacturer and dealer stocks than to a positive preference for the particular equipment, though the trend does follow the pattern set up in the prewar years. High pressure burners accounted for 27,192 burners and units of the 1943 sales, or 81.3% of all equipment sold. Low pressure burners accounted for 3.2%; vertical rotary, 5.6%; and vaporizing burners 9.9% of the total. Sales of domestic burners by types with the percentages compared with the average of the prewar years are shown in the following table:

| | 1943 | Five-Year Average |
|---|---|---|
| High Pressure | 27,192—81.3% | 71.7% |
| Low Pressure | 1,070— 3.2% | 6.2% |
| Vertical Rotary | 1,873— 5.6% | 11.0% |
| Vaporizing | 3,310— 9.9% | 10.8% |

A miscellaneous classification, largely the "pup" type of horizontal rotary burner, formerly had accounted for an average of 0.3%, but during the last year this type of burner had practically disappeared from domestic use, and was impossible to classify in any detail. This type of burner has been used extensively in government work for water heating and ship heating units, but was not permitted to be manufactured for domestic installation.

### Domestic Conversion Burners

Conversion oilburners sold in 1943 totalled 21,363, of which 11,293 or nearly 53% were taken by war agencies. The 10,070 conversion burners sold by dealers for domestic use (1,310 for new installations and 8,760 for replacements) represent 62.8% of dealer sales of burners and units. The prewar average was 80.1% conversion burner volume. It is assumed that the entire conversion and reconversion activity was in conversion burners, since most integral boiler or furnace units remained oilfired. Against the conversion loss of 3,955 conversion burner installations, and replacement loss of 5,150 to units, there were 1,310 new jobs installed, leaving a net conversion burner loss of 7,795, and bringing the total conversion burners operating at the end of the year down to 2,065,465, as shown in Table 2. This loss is less than 2/5 of 1% for conversion oilburners.

Prices of conversion burners, both wholesale and retail, continued to stiffen during the year. Manufacturers and distributors with low stocks were not anxious to sell them, and late in the year dealers in some areas had trouble finding the burners they wanted for replacements. Dealers, short of help, made replacements as required, and were not too afraid of competition. Average installed price for conversion burners stiffened 3.3% during the year to $276, while the minimum average price was up nearly 1% to $247. The price record for recent years is shown in Table 5.

Factory price figures this year are colored by the trading between dealers for stocks of burners. This factory price is based on the prices dealers report they have paid to get their burners. Many of the burners used this year have been

**Table 5. Conversion Burner Price Trends**

| Retail | | | | | Factory | | | |
|---|---|---|---|---|---|---|---|---|
| Average | % change prev. yr. | Aver. Min. | % change prev. yr. | | Average | % change prev. yr. | Aver. Min. | % change prev. yr. |
| $692 | .. | $554 | .. | 1929 | $240 | .. | .. | .. |
| 629 | — 9.1 | 516 | — 6.8 | 1930 | 195 | —18.7 | .. | .. |
| 495 | —21.3 | 413 | —19.9 | 1931 | 160 | —18.0 | .. | .. |
| 438 | —11.5 | 371 | —10.1 | 1932 | 140 | —12.5 | .. | .. |
| 395 | — 9.8 | 341 | — 8.1 | 1933 | 129 | — 7.8 | $109 | .. |
| 341 | —13.6 | 310 | — 9.0 | 1934 | 118 | — 8.5 | 99 | — 9.1 |
| 317 | — 7.0 | 275 | —11.2 | 1935 | 98 | —16.9 | 88 | —11.1 |
| 300 | — 5.3 | 266 | — 3.2 | 1936 | 94 | — 4.1 | 85 | — 3.4 |
| 293 | — 2.3 | 255 | — 2.6 | 1937 | 86 | — 8.5 | 82 | — 3.5 |
| 263 | —10.2 | 236 | — 7.4 | 1938 | 79 | — 8.1 | 76 | — 7.3 |
| 240 | — 8.7 | 218 | — 7.6 | 1939 | 78 | — 1.3 | 69 | — 9.2 |
| 233 | — 2.9 | 210 | — 3.7 | 1940 | 76 | — 2.6 | 63 | — 8.7 |
| 250 | + 7.2 | 226 | + 7.6 | 1941 | 81 | + 6.9 | 65 | + 3.2 |
| 267 | + 6.8 | 245 | + 8.4 | 1942 | 85 | + 4.9 | 73 | +12.3 |
| 276 | + 3.3 | 247 | + 0.9 | 1943 | 86 | + 1.2 | 76 | + 4.1 |

TABLE 3

## Integral Boiler-Burner Units

| Sales | Retail Value | Factory Value | Year | No. in Use (End of Year) |
|---|---|---|---|---|
| 10,510 | $9,511,600 | ..... | 1935 | 31,400 |
| 15,025 | 9,781,300 | ..... | 1936 | 46,250 |
| 14,430 | 8,557,000 | $3,795,100 | 1937 | 60,240 |
| 14,220 | 7,877,900 | 3,711,400 | 1938 | 73,930 |
| 19,220 | 9,744,500 | 4,286,100 | 1939 | 92,540 |
| 26,955 | 13,322,700 | 5,005,300 | 1940 | 118,560 |
| 39,990 | 21,874,500 | 9,717,600 | 1941 | 155,720 |
| 9,313 | 5,289,800 | 2,877,700 | 1942 | 163,040 |
| 6,637 | 1,705,600 | 2,090,600 | 1943 | 166,240 |

TABLE 4

## Integral Furnace-Burner Units

| Sales | Retail Value | Factory Value | Year | No. in Use (End of Year) |
|---|---|---|---|---|
| 3,175 | $2,457,400 | ..... | 1935 | 5,600 |
| 7,620 | 5,044,400 | ..... | 1936 | 13,120 |
| 11,390 | 6,526,500 | $2,540,000 | 1937 | 24,010 |
| 11,290 | 6,243,400 | 2,427,300 | 1938 | 34,140 |
| 16,900 | 8,771,100 | 3,464,500 | 1939 | 49,850 |
| 36,410 | 19,115,300 | 7,646,100 | 1940 | 82,960 |
| 55,295 | 32,181,700 | 12,939,000 | 1941 | 133,180 |
| 18,543 | 8,029,100 | 5,099,300 | 1942 | 149,990 |
| 5,446 | 1,691,900 | 1,503,200 | 1943 | 152,750 |

picked up from other dealers who had them in stock at prices considerably above the true factory price. Though prices at the factory are frozen, the factory prices reported in Table 5 show an increase in the prices dealers pay to get burners. The average is up 1.2% to $86, and the minimum factory prices rose 4.1% to $76.

Average wholesale and retail prices for each type of conversion burner in 1943 and 1942 were as follows:

| Retail 1943 | Retail 1942 | | Wholesale 1943 | Wholesale 1942 |
|---|---|---|---|---|
| $257 | $253 | High Pressure | $ 91 | $ 84 |
| 289 | 278 | Low Presure | 119 | 108 |
| 312 | 303 | Vert. Rotary | 120 | 114 |
| 191 | 176 | Vaporizing | 62 | 58 |

Average price for replacement burners installed without tank and controls was $174 last year, up 8% from $161 in 1942. When controls were supplied the price was $27 higher.

Retail dollar volume of conversion burners totals but little more than the factory value, since only 10,070 conversion burners were handled at retail, and of these 87% were for replacement. The retail conversion volume of $1,885,800 represented but 35.7% of the burner and unit total volume, compared with 55.4% in 1942, and it represents a drop of 82.6% from the previous year's volume.

Factory value of conversion burners was off 69.8% for the year, to $1,837,200, representing 33.8% of the total for all classes of product. Conversion burner figures on dollar volume are in Table 2.

### Integral Boiler-Burner Units

The industry sold 6,637 factory-assembled boiler-burner units last year, off 28.7% from 1942. Of the total 3,437, or 51.8% were used by the government agencies, and 41.9% or 3,437 went for replacements. These units represented 19.8% of the total burners and units sold compared with 9.4% in 1942. Integral boiler units in operation at the end of 1943 had increased only 3,200 units (420 of which were new and 2,780 replacements of old conversion burners) to 166,240, up 1.9%. Integral boiler unit sales and numbers in operation at the end of recent years are shown in Table 3.

Retail prices of installed boiler units declined 6.2% during the year to an average of $533 from $568 in 1942. This drop probably reflects the relatively large number of units used for replacements where tanks and wiring were in place. Minimum prices at retail were off 23.7% to $361 for the year.

Average wholesale prices rose 2% to $315, and minimum prices were up 1% to $231, possibly due to the necessity of finding units in dealer stocks that must be bought at higher than manufacturer prices. (See Table 6).

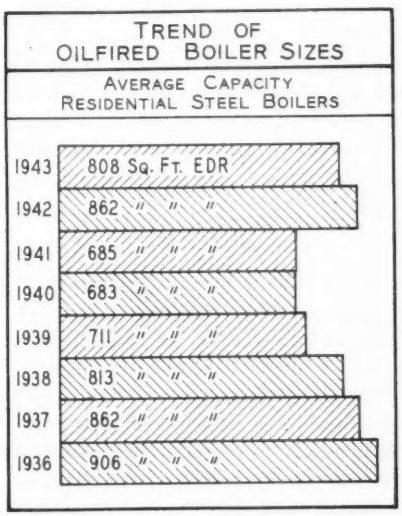
Installed value of integral boiler units handled by dealers in 1943 declined 67.7% to $1,705,600; less than the factory value of all the boiler units made or shipped from stock. This retail volume represented 32.3% of the dealer sales of burners and units, compared with 17.9% in 1942.

Factory value of boiler units declined 27.4% to $2,090,600, representing 38.5% of the total wholesale value of burners and units. This compares with 20.4% of the total factory value a year ago. Figures for recent years are given in Table 3.

In addition to integral boiler units, there were an estimated 2,835 units assembled in the field by dealers using new boilers and conversion burners. In 1942 the dealers assembled 8,690 of these units. Of the field-assembled boiler units in 1943, about 600, or 21% were steel, and 2,235, or 79% were cast iron. In 1942, 19% were steel. Combining the dealer-assembled and integral boiler-burner

### Table 6. Prices of Factory-Assembled Boiler-Burner Units

| Average | % change prev. yr. | | Min. | % change prev. yr. |
|---|---|---|---|---|
| | | RETAIL | | |
| $905 | ... | 1935 | $723 | ... |
| 651 | —28.0 | 1936 | 566 | —21.7 |
| 593 | — 8.9 | 1937 | 516 | — 8.8 |
| 554 | — 6.5 | 1938 | 482 | — 6.6 |
| 507 | — 8.3 | 1939 | 441 | — 8.5 |
| 495 | — 2.4 | 1940 | 365 | —17.2 |
| 547 | +11.5 | 1941 | 378 | + 3.6 |
| 568 | + 3.8 | 1942 | 473 | +25.1 |
| 533 | — 6.2 | 1943 | 361 | —23.7 |
| | | FACTORY | | |
| $263 | ... | 1937 | $246 | ... |
| 261 | — 0.7 | 1938 | 244 | — 0.8 |
| 223 | —14.5 | 1939 | 208 | —14.7 |
| 215 | — 3.6 | 1940 | 183 | —12.0 |
| 243 | +13.0 | 1941 | 201 | + 9.9 |
| 309 | +27.1 | 1942 | 229 | +13.4 |
| 315 | + 2.0 | 1943 | 231 | + 1.0 |




### Table 7. Boiler Sales

| | Total Output | No. for oil | % for oil |
|---|---|---|---|
| | CAST IRON | | |
| 1935 | 160,105 | 29,310 | 18.3 |
| 1936 | 186,560 | 41,922 | 22.5 |
| 1937 | 169,707 | 58,462 | 34.2 |
| 1938 | 135,282 | 54,139 | 40.0 |
| 1939 | 146,919 | 61,070 | 41.6 |
| 1940 | 168,839 | 77,764 | 46.1 |
| 1941 | 178,076 | 80,176 | 45.0 |
| 1942 | 111,875 | 10,765 | 9.6 |
| 1943 | 81,500 | 8,852 | 10.9 |
| | STEEL | | |
| 1935 | 14,415 | 14,181 | 98.1 |
| 1936 | 19,242 | 18,622 | 96.8 |
| 1937 | 16,569 | 15,321 | 92.7 |
| 1938 | 19,098 | 17,218 | 90.3 |
| 1939 | 23,658 | 21,857 | 92.4 |
| 1940 | 24,580 | 23,206 | 94.5 |
| 1941 | 25,666 | 24,173 | 94.2 |
| 1942 | 13,000 | 7,238 | 55.7 |
| 1943 | 3,550 | 1,230 | 34.7 |

**Table 8. Price Trends of Factory-Assembled Forced-Air Units**

| Aver-age | % change prev. yr. | | Aver. Min. | % change prev. yr. |
|---|---|---|---|---|
| | | RETAIL | | |
| $774 | ... | 1935 | $642 | ... |
| 662 | —14.4 | 1936 | 576 | —10.2 |
| 573 | —13.4 | 1937 | 499 | —13.3 |
| 553 | — 3.5 | 1938 | 481 | — 3.4 |
| 519 | — 6.2 | 1939 | 402 | —16.4 |
| 525 | + 1.2 | 1940 | 360 | —10.4 |
| 582 | +10.9 | 1941 | 402 | +11.7 |
| 611 | + 4.9 | 1942 | 413 | + 2.7 |
| 613 | + 0.3 | 1943 | 418 | + 1.2 |
| | | FACTORY | | |
| $223 | ... | 1937 | $210 | ... |
| 215 | — 3.6 | 1938 | 204 | — 2.8 |
| 205 | — 4.7 | 1939 | 198 | — 2.9 |
| 210 | + 2.4 | 1940 | 196 | — 2.0 |
| 234 | +11.4 | 1941 | 201 | + 2.5 |
| 275 | +17.5 | 1942 | 236 | +17.4 |
| 276 | + 0.4 | 1943 | 241 | + 2.1 |

units, there were 9,472 used for new work and replacements in 1943, against 18,003 in 1942.

### All Boiler Sales

Total heating boiler sales for all fuels in 1943 amounted to 85,050, of which 3,550, or 4.2% were steel, and 81,500 were cast iron. Of the 85,050 total boilers sold, 10,082, or 11.8% were for oil, compared with 14.4% in 1942. As shown in Table 7, 8,852 of the 81,500 cast iron boilers, or 10.9% were oilfired, against 9.6% in 1942, and 1,230 of the 3,550 steel boilers were oilfired; 34.7% in 1943, against 55.7% in 1942.

Steel boilers this year accounted for only 4.2% of the total heating boilers sold, compared with 10.4% steel in 1942. This reflects the ban on manufacturing steel boilers for ordinary heating uses. Domestic steel boilers totalled 1,800 this year, and commercial 1,750.

Average sizes of boilers continued to increase generally during 1943, as greater than normal percentages of boilers went to war uses that require commercial sizes. Average weights of cast iron boilers were up about 12% during the year, and the capacity of commercial steel boilers increased less than 1%. Residential steel boilers were the single exception to the rule, since these boilers came mostly from stock and the smaller sizes are most frequently stocked. The average capacity of residential steel boilers for oilfiring dropped 6.2% to 808 sq. ft. EDR.

Repair parts demanded about 15% of the total weight of boiler castings this year, compared with 10% in 1942, and 8.4% in 1941.

**Table 9. Warm Air Furnace Sales**

| | 1943 Cast Iron | 1943 Steel | 1942 Cast Iron | 1942 Steel |
|---|---|---|---|---|
| | | FORCED AIR | | |
| Coal | 12,420 | 6,290 | 7,520 | 15,430 |
| Gas | 1,140 | 1,480 | 7,370 | 16,580 |
| Oil | 590 | 4,640 | 1,060 | 14,810 |
| Total | 14,150 | 12,410 | 15,950 | 46,820 |
| | | GRAVITY | | |
| Coal | 114,415 | 16,860 | 118,800 | 46,570 |
| Gas | 835 | 2,010 | 5,730 | 13,590 |
| Oil | 110 | 1,330 | 400 | 5,050 |
| Total | 115,360 | 20,200 | 124,930 | 65,210 |

### Domestic Furnace-Burner Units

Sales of integral, factory-assembled furnace-burner units last year totalled 5,445, off 70.6% from the 18,543 sold in 1942. Integral oilfired furnace sales accounted for 16.3% of total burners in 1942, compared with 18.6% a year before.

Government work took 2,685 integral furnace units, or 49.3% of the total, and replacements demanded 43.5%, or 2,370 units. Only 390 units, 7.2% were used for new work.

Integral furnace units in operation at the end of the year had risen 1.8% to 152,750. Annual sales and number of units in operation for recent years are shown in Table 4.

Both wholesale and retail prices rose slightly during the year, reflecting the continued buying in small lots, and installation of single units rather than the large scale builder business that was fading out of the industry during 1942. Detail of the average prices for furnace units is given in Table 8.

Retail value (off 79% from 1942) and wholesale value (off 70.5%) are shown for furnace units in Table 4. Retail value is given only for the 2,760 units that dealers used for replacement and new work.

Dealer-assembled furnace units are estimated at 1,220 units for the year, most of them apparently from stocks on hand. Table 9 shows a break-down of furnace sales by type of fuel used and type of furnace for 1943 and 1942.

### Competitive Firing

Stoker sales in the domestic and small commercial sizes (Classes 1 and 2) amounted to 19,040, off 80.2% from 1942. Of the total, 2,700 or 14.2% were Anthracite stokers, against 14.8% a year ago, and 16,340 were bituminous stokers. Small stokers in operation at the end of the year were up 1.8% to 955,450, as shown in Table 10.

**Table 10. Domestic Stokers**

| Sales | % change | | No. in use | % change |
|---|---|---|---|---|
| 11,361 | ... | 1931 | 20,811 | ... |
| 11,144 | — 1.9 | 1932 | 31,955 | +53.5 |
| 15,618 | +32.0 | 1933 | 47,573 | +48.8 |
| 25,510 | +73.3 | 1934 | 73,083 | +53.6 |
| 45,194 | +77.1 | 1935 | 118,277 | +61.8 |
| 84,421 | +86.8 | 1936 | 202,698 | +71.3 |
| 103,378 | +22.4 | 1937 | 306,076 | +51.0 |
| 98,907 | — 4.3 | 1938 | 403,005 | +31.6 |
| 106,208 | + 7.4 | 1939 | 507,412 | +25.9 |
| 159,533 | +48.6 | 1940 | 658,970 | +29.7 |
| 198,243 | +24.3 | 1941 | 843,313 | +28.0 |
| 96,420 | —51.3 | 1942 | 938,315 | +11.3 |
| 19,040 | —80.2 | 1943 | 955,450 | + 1.8 |

Domestic gas burner sales are estimated at 13,255 for 1943, off 71.4% from the year before. Of the total, 800 (6%) were conversion burners; 3,485 (26.3%) boiler units; and 8,970 (67.7%) were warm air units. Gas heating installations operating at the end of the year are estimated at 1,101,300 installations, up 0.3%.

### Commercial Burners

The 44,470 commercial and industrial burners sold last year represent a decrease of 19.7% from the 55,360 of 1942. Of the total, 40,910 or 92% were mechanical draft.

During the year there were 28,168 commercial installations converted to coal, and only 7,858 reconversions to oil, for a conversion loss of 20,310. Partly offsetting this were 12,235 new installations for commercial heating, making the net loss 8,075, and bringing the total commercial heating installations in operation down to 285,045. Sales and number of commercial heating installations in operation at the end of recent years are shown in Table 11.

### Space Heaters

Oilheating dealers sold an estimated 16,300 oilfired space heaters last year, or a decrease of 40% from 1942. It is believed that total sales of oilfired space heaters for the year reached 90,500 units. Oilfired space heaters in operation total 1,874,900.

(Continued on page 39)

**Table 11. Commercial Oilburners**

| Sales | | No. Operating (End of year) |
|---|---|---|
| 14,990 | 1935 | 176,240 |
| 18,435 | 1936 | 192,830 |
| 19,380 | 1937 | 210,275 |
| 13,955 | 1938 | 222,880 |
| 16,445 | 1939 | 237,680 |
| 20,710 | 1940 | 256,320 |
| 34,750 | 1941 | 287,595 |
| 55,360 | 1942 | 293,120 |
| 44,470 | 1943 | 285,045 |

# Small Dealers Fade

## But Those with Strong Service or Fueloil Departments Thrive

CHARTING THE PATTERN of oilheating dealer organizations is more of a chore after two war years than it was in the days of industry expansion. Before Tojo sacked Pearl Harbor the industry visualized the most effective retail outlet as what was called the "Four-Way" dealer, meaning that he merchandised oilburners, heating, airconditioning and fueloil, bringing to the consumer undivided responsibility for home comfort and convenience.

By 1941 about 42% of oilheating dealers were in that class. A majority of the others sold two or three of the four lines.

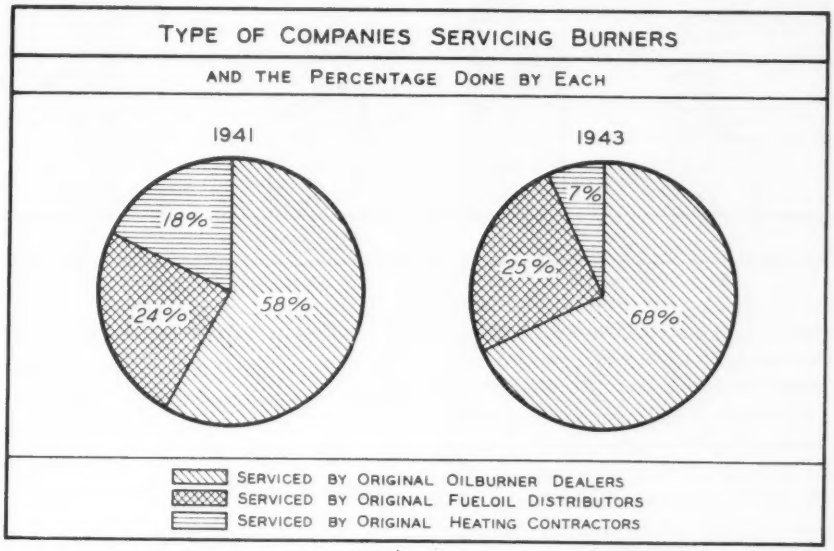
When the early war months brought a cessation of new burner installations, as well as burner manufacture for other than priority orders, dealers who had limited their activities to equipment sales were immediately behind the eight ball and started finding something else to do. This group has accounted for heavy dealer mortality. If, however, the company had a substantial service department, sold fueloil, or both, it still had what the oilheating public must have. With few exceptions such firms are still in business, many of them thriving.

While a few thousand oilburners were sold in 1943, they were substantially all replacements, run-of-the-mill work for service departments, not for sales organizations.

### Mortality 42% in War

Mortality among oilburner dealers in two war years has reached a total of 42% in number, though not of course in sales volume importance. The majority of those who quit were either appliance dealers, oilburner specialty sales organizations or small heating contractors, firms without enough capital tie-up in the business to justify a battle to hang on. Of 13,100 firms selling oilburners in 1941 there remain 7,600 as 1943 closes.

In a 1941 survey it was found that the largest 20% of oilburner dealers did 72% of that year's business, so it is reasonable to believe that the many small companies that have folded up represented no more than 15% of the market at that time.




In looking over the returns from several hundred dealers cooperating in the current survey, it is worthwhile to study their present activities in the light of their company backgrounds, an index to what type of organization possesses the most vitality in years of stress. The best measure of background is determining what product first brought the dealer into the oilheating picture. It is often confusing to call one man an oilburner dealer and another in his community a fueloil distributor, when each sells both products. Often a man who originally sold burners only has added fueloil handling facilities and now sells more oil than the original oil companies in his town—and vice versa.

Dealers were asked this year to state the year in which they first sold each of five products. The same was done in the last prewar year, 1941. Knowing which product first brought them into oilheating is a guide to their industry thinking.

Recalling that burner sales at present are made by service departments, a comparison between 1941 and 1943 is made of backgrounds of all reporting companies who now operate burner service departments.

**Service Company Backgrounds**

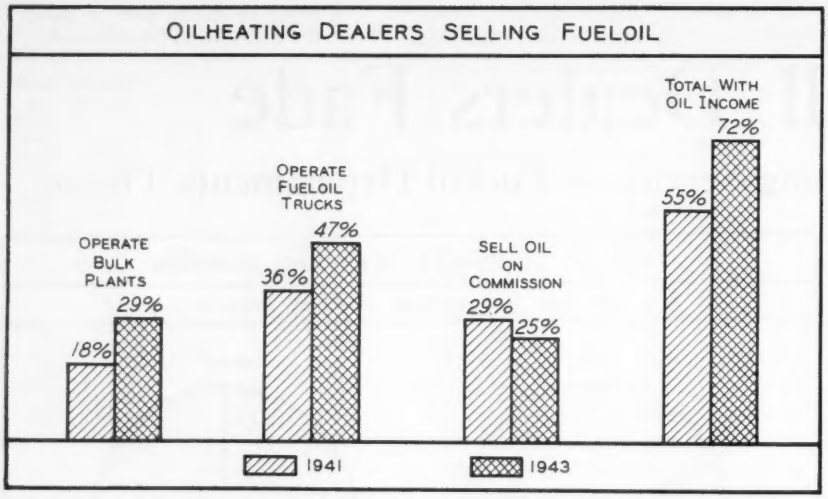
| | *Business Origin of Burner Servicing Companies* | |
|---|---|---|
| | *1941* | *1943* |
| Dealers who started: | | |
| First in burners | 48 | 33 |
| First in heating | 35 | 32 |
| First in fueloil | 17 | 35 |
| | 100 | 100 |

This table can be misleading unless studied. Its major disclosure is rate of dealer mortality. It doesn't mean that oil companies are servicing twice as many burners as two years ago, but rather that such companies have virtually all stayed in business. Likewise it shows heavy mortality among original burner sales organizations. To get a true picture of the shift in relative importance of the three groups, it is best to look at the total number of burners they service.

**Burners Serviced**

| | *Burners Serviced as % of all burners* | |
|---|---|---|
| | *1941* | *1943* |
| Dealers who started: | | |
| First in burners | 58 | 68 |
| First in heating | 18 | 7 |
| First in fueloil | 24 | 25 |
| | 100 | 100 |

This indicates that the larger original burner dealers, once new sales had stopped




and they were faced with necessity of increasing service income, weaned customers away from heating contractors.

Of whatever background, all reporting dealers sell either burner service or fueloil; 77% have service departments; 72% sell fueloil; 56% sell both. Not all of those selling fueloil operate their own bulk plants or truck fleets; more than a third of them sell oil on commission to their service customers, but the important point is that they get some income from oil.

A comparison of 1941 and 1943 in fueloil handling characteristics of oilheating dealers is:

**Oilheating Dealers Sell Fueloil**

| | *Percent of Dealers* | |
|---|---|---|
| | *1941* | *1943* |
| Operate Bulk Plants | 18 | 29 |
| Operate Fueloil Trucks | 36 | 47 |
| Sell Oil on Commission | 29 | 25 |
| Total with Oil Income | 55 | 72 |

Again, this doesn't mean that a lot of bulk plants were built, or trucks bought —they weren't—but it shows that a large number without oil income had to quit.

Dealers found it necessary in 1943 to continue to find ways to save overhead costs. Their spending for advertising is indicative. Most of it was done to get service business, with lesser emphasis on oil sales and none on equipment sales. While expenditure in each of the three major classifications was down, the classified telephone directory suffered least, as could be expected, since that is a good source of service leads. A comparison of advertising dollars spent in 1943 with the average of four previous years shows:

**Dealer Advertising Costs**

| | *Advertising Cost per Service Customer* | |
|---|---|---|
| | *1943* | *Avg. 1939–42* |
| Newspapers | $ .07 | $ .27 |
| Direct Mail | .04 | .11 |
| Telephone Directory | .11 | .16 |
| Total | .22 | .54 |

Crossing competitive fuel lines, 39% of oilheating dealers in 1943 sold one or more stokers. They actually sold a few more stokers than they did oilburners, although it was still a negligible number. The reasons for stoker sales by a larger percentage of dealers than in 1942 is understandable; a good many oil companies also operate coal yards, particularly in New England, and stoker sales were not banned as were oilburners to new users. When local boards refused rations because heating facilities were convertible to coal, the owner objected to going back to hand firing and his burner dealer was in good position to get some business if he could get a stoker, and he could. However, as explained in another article in this issue, total stoker sales for the year were only about half those of oilburners, since a large percentage of oilburners went to Government buyers.

Only three percent of oilheating dealers sold gas heating equipment in 1943. New gas installations had been banned in September 1942, and the small number of replacement sales have been made largely by gas companies, since they service practically all gas heating plants. In the last prewar year, 1941, gas equipment was sold by 16 percent of oilheating dealers, mostly in the Middle West.

## Service Price Changes Are Issued Officially

SERVICE PRICE changes first issued as Supplementary Service Regulation No. 19, and reported in the October issue, page 28, and the interpretations to the supplementary regulation (November, page 36), have been incorporated into Revised Supplementary Service Regulation No. 19 to Maximum Price Regulation 165, and became effective on December 15. Chief among the revised regulations are:

Oilburner service companies now operating on a per-call basis may either retain their per-call basis of charging, or may convert to an hourly rate basis not exceeding that allowable in Regulation 19.

The new action also provides that (1) rates for the first hour may be charged for any portion thereof, even though the actual working time consumed is less than one hour, (2) charges for the second or succeeding hours must be computed on the basis of 15-minute periods, rounded out to the nearest 5 cents, and (3) rates established apply to each mechanic or service man employed on the job.

Another provision makes it clear that the new regulation does not apply to suppliers who sell oil burner service under a seasonal or yearly contract or to sellers who first sell or offer to sell services on or after the effective date of this revised regulation.

The revised regulation delegates to the regional administrators and district directors authority to apply the rates for any city to an area which, in the judgment of the field officer, should take the city rate. This is necessary, OPA said, because of the many large cities surrounded by populous suburban communities that normally have had the same level of rates. The field officers also are authorized to suspend the regulation in any area they believe such action can best serve price control.

◈

CONVERSION PARTS prices have been revised to a per piece basis from the former per pound schedule for ordinary boiler and furnace parts, and ceiling prices have been set on conversion kits that are sold as a complete unit. This revision of MPR 236 returns ordinary repair parts prices to MPR 188 at the manufacturer's level, GMPR at the jobber level, and to MPR 251 when sold installed.

# Men Wanted

## Service Keeps Afloat with Half of Prewar Manpower

SERVICE DEPARTMENTS in 1943 were both a blessing and a headache to oilheating dealers and fueloil distributors . . . a blessing in that they provided much needed revenue in a year when very few new burners could be sold, but perpetually difficult to operate in the face of a tightening manpower situation.

Because of manpower stringency, service managers were less promotional than in the previous year, not too anxious to get more business when they could hardly handle what they had.

As a result, service department income of several hundred dealers reporting for this study increased only slightly over the previous year, although there was enough money in circulation and enough interest in fuel conservation that the oilheating public would have spent more if asked to do it.

The average dealer's service income in 1943 was $9,655 against $9,649 for the same group in 1942, practically no change, but it is interesting that the same dollar volume was done with 26% less service men than in 1942.

The inroads of selective service and the lure of high wages in war plants continued to decimate service crews, and industry realists expect the situation to become some worse before it gets better. Meanwhile it is inevitable that some burners will not get attention this winter when needed, and on emergency breakdowns some homes will be cold for hours or days.

At the close of 1943 there is one service man employed to each 461 oilburners; in 1942 the ratio was one to 337 and in 1941 there was one service man to each 244 burners. Thus, service manpower is just about half of what it was prewar.

To help hold men against lucrative war plant jobs and also to help them meet rising living costs, dealers increased wage scales considerably during the year. Service men's average weekly income in 1943 and 1942 was:

**Weekly Service Wages**

| | *1942* | *1943* |
|---|---|---|
| New England: High | $60 | $75 |
| Low | 33 | 37 |
| Average | 50 | 57 |
| Middle Atlantic: High | 70 | 75 |
| Low | 33 | 38 |
| Average | 46 | 53 |
| Middle West: High | 80 | 80 |
| Low | 30 | 30 |
| Average | 59 | 62 |
| Pacific Northwest: High | 80 | 80 |
| Low | 60 | 60 |
| Average | 69 | 73 |
| U. S. Average | 53 | 59 |

In the areas of stiffest war plant competition wages were relatively highest, notably in the Pacific Northwest where shipyards and bomber plants exerted a terrific pull.

Notice that the wages stated are weekly average income, regardless of hours, and not base pay for 40 hours.

An example of service management difficulties in 1943 was the fact that, while wages increased, the average minimum service charge was lower than in 1942. That may not have been so throughout the year, but in December it was lower than in the previous December.

This came about as a result of a clearer understanding of OPA's service price policy, and substantial though belated compliance with it. Back in the Summer of 1942 OPA required that all companies file their March 1942 service prices, and adhere to them. Few companies did this—many did not know of the requirement—with the result that under the general expansion flavor of the times, prices went up. Then in August 1943 OPA again emphasized the necessity of filing service prices and at the same time announced a dollars-and-cents price ceiling for those companies who did not file their historic prices by November 1. The OPA

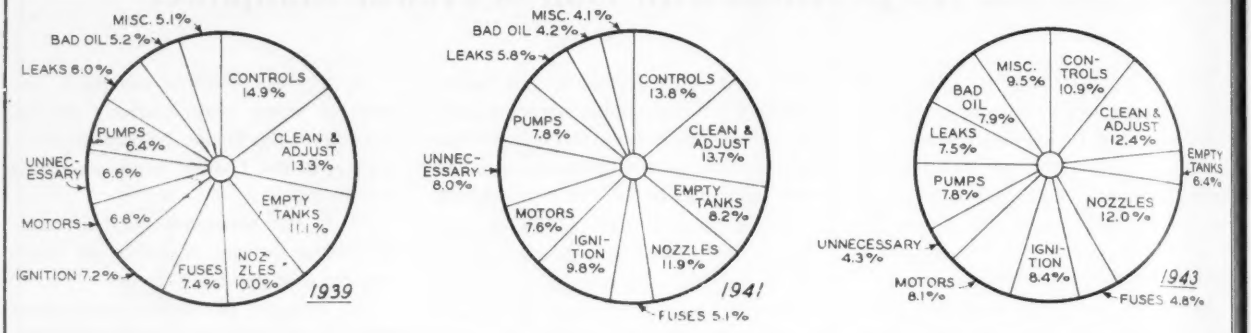
EQUIPMENT SALES, 1943, BY OILHEATING DEALERS

| | *For each 1,000 service customers* | *Indicated Total* |
|---|---|---|
| **Oil Burning Equipment** | | |
| Conversion oilburners | 4.2 | 10,070 |
| Boiler-burner units | 1.3 | 3,100 |
| Furnace-burner units | 1.1 | 2,760 |
| Pot-type furnace burners | .5 | 1,336 |
| Pressure-burner water heaters | .3 | 815 |
| Pot-type water heaters | 3.7 | 8,765 |
| Commercial burners | 1.8 | 4,376 |
| Space heaters | 6.8 | 16,300 |
| **Water Heating Accessories** | | |
| Summer-Winter hookups | 1.2 | 3,264 |
| Indirect water heaters | 2.8 | 7,392 |
| Hot water tanks | 17.0 | 44,904 |
| Tank safety valves | 8.6 | 22,704 |
| **Warm Air Heating Equipment** | | |
| Separate furnaces | 21.7 | 57,192 |
| Furnace blowers | 10.1 | 26,808 |
| Humidifiers | 4.4 | 11,496 |
| Air filters | 155.5 | 408,048 |

| | *For each 1,000 service customers* | *Indicated Total* |
|---|---|---|
| **Oilburner Parts & Accessories** | | |
| Nozzles | 84.6 | 223,416 |
| Motors | 9.9 | 26,232 |
| Fuel units | 11.8 | 31,200 |
| Transformers | 10.2 | 26,880 |
| Ignition assemblies | 9.8 | 25,824 |
| Pressure regulating valves | 7.9 | 20,856 |
| Oil line valves | 8.8 | 23,352 |
| Oil tanks | 6.8 | 17,976 |
| Oil filters | 22.1 | 58,560 |
| Draft regulators | 35.9 | 94,944 |
| Precast chambers | 8.5 | 22,560 |
| Combustion baffles | 5.2 | 13,708 |
| Stack switches | 13.6 | 35,976 |
| Thermostats | 18.6 | 48,984 |
| Clock thermostats | 4.2 | 11,160 |
| Limit controls | 19.7 | 51,888 |
| **Boiler Heating Equipment** | | |
| Separate boilers | 5.2 | 14,088 |
| Hot water circulators | 3.4 | 8,904 |
| Low water limit controls | 4.3 | 11,376 |

## CAUSES OF SERVICE CALLS; A FIVE-YEAR TREND

### AS AVERAGE BURNER AGE INCREASES, MOVING PARTS NEED MORE ATTENTION




ceilings for non-price-filing companies included minimum per-call charges of $2.50 in cities of 500,000 or larger, $2.00 in cities over 100,000 and $1.50 in smaller cities. Since many companies had higher minimum charges, this new order resulted in widespread filing of March 1942 prices with local boards.

The net result of closer OPA compliance was a $2.71 national average minimum per-call service charge in December 1943, compared with $2.92 a year earlier and $2.25 in December 1941. By regions, minimum current service call charges are:

**Minimum Service Charges**

| | *New Eng.* | *Mid. Atl.* | *Mid-west* | *Pac. N.W.* |
|---|---|---|---|---|
| Highest | $3.50 | $4.00 | $4.00 | $2.50 |
| Lowest | 1.00 | 1.50 | 2.00 | 2.00 |
| Average | 2.57 | 2.52 | 3.08 | 2.38 |

It should be recalled that these are minimum labor charges only, excluding any repair or accessory parts sales, while it is obvious that the average billing per call must have been higher in 1943 than in 1942, since the same total dollar volume was done with 26% less men to do the work.

The same price trend was disclosed by reports of service charges for annual contracts. The average current charge for annual service is $14.53 (high $25; low $9.00) whereas a year ago it was $16.60 and in 1941 was $16.00.

There would be no point in dropping below the 1941 price, but for the fact that fewer dealers this year report selling annual contracts. In fact, the drop in number of annual contracts sold is so great as to seem unrepresentative, although the number of dealers reporting is as large as a year ago.

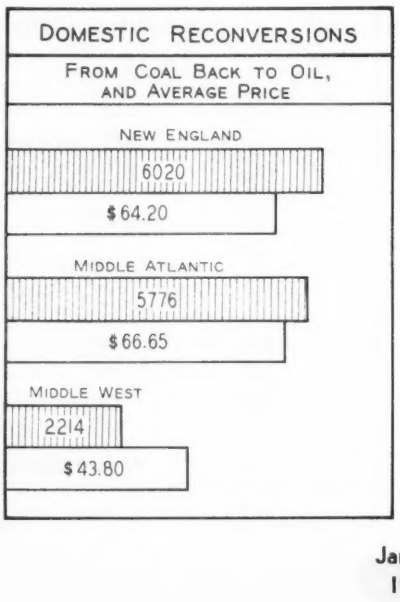
Although it had been stated during the year by some dealers, and shrugged off as an individual experiment, yet, from the present survey it must be true that very many service departments decided during the year that annual contracts might become millstones if manpower shortages became too acute, and they didn't want this responsibility, so discouraged them.

Another hard-to-believe disclosure in the returns this year is that more free service was rendered in 1943 than in 1942 by quite a margin. The figures show that 6.5% of service calls were without charge in 1943, compared with 2.1% in 1942 and 20.0% in 1941, the last prewar year.

Perhaps some dealers lost oil business by cutting it out in '42 and decided to go part way back; again, perhaps some dealers believed that under the general OPA tightening of regulations they were required to render free service because they did it in March 1942 (which isn't so); perhaps oil supplies are enough easier this season to encourage some companies to merchandise no-charge service to preferred accounts.

## DOMESTIC RECONVERSIONS

### FROM COAL BACK TO OIL, AND AVERAGE PRICE




Another important shift in service activity in 1943 was in the number of boilers and furnaces vacuum cleaned, which practically dropped in half. This is not hard to understand, with the manpower shortage and the dearth of annual contracts, all of which had included a cleaning job. From returns, the indicated total heating plants vacuum cleaned in '43 was 353,100, against 715,000 the year before. The average charge increased, however, since this gets away from the minimum service ceilings.

The average vacuum cleaning bill for the year just ended was $6.74, while in 1942 it was $5.48 and in 1941 it was $4.78, Since vacuum cleaning is all labor, the higher cost is understandable, but the implication is that labor was so scarce that dealers didn't try very hard to get such business.

It becomes obvious that as manpower progressively tightened service managers minimized efforts to sell jobs involving much labor and swung over to selling all possible equipment. Sales of replacement burners, conversions and reconversions are described in the first article in this issue. Sales of repair parts and heating accessories, as reported on the preceding page, blossomed under those conditions, with the result that service dollar volume equalled the year before.

Sales of burners, by months, varied somewhat from the prewar pattern, since virtually all were replacements. Com-

pared with a six-year prewar average 1936-41, they were:

| | 1943 | 6-year average |
|---|---|---|
| January | 8.7% | 4.3% |
| February | 6.6 | 3.6 |
| March | 9.2 | 5.3 |
| April | 7.2 | 6.5 |
| May | 4.9 | 6.7 |
| June | 6.6 | 7.1 |
| July | 6.1 | 8.7 |
| August | 6.1 | 11.5 |
| September | 15.1 | 17.2 |
| October | 13.7 | 16.2 |
| November | 9.2 | 8.0 |
| December | 6.6 | 4.9 |

Dealer activity in fuel conservation sales, other than heating equipment renovation and accessories, was dominated by the sale of home insulation. Averaging all reporting dealers, they sold 13.4 home insulation jobs for each 1,000 service customers, or an indicated total for all oilheating dealers of 35,496 jobs. A handful sold storm sash jobs, with an indicated industry total of about 3,000 homes so supplied.

New equipment for operating the service department was bought in frugal quantities, for obvious reasons; yet actual industry totals are relatively important. Typical are these:

| | Bought per 1,000 Service Customers | Indicated Industry Total |
|---|---|---|
| Vacuum Cleaners | .6 | 1,512 |
| Portable Electric Tools | .6 | 1,608 |
| Service Trucks | .3 | 912 |
| Truck Tires | 7.1 | 18,672 |



## *Industry Scrapes Bottom*

(*Continued from page 34*)

### Water Heaters

Reports indicate sales of 11,180 water heaters during 1943, off 58.7% from the year before. Mechanically fired water heaters accounted for 2,415 units, or 25.2%, against 24.1% of the 20,740 sold in 1942. Oilheating dealers, however, sold only 815 mechanically fired water heaters, or 33.8% of the industry's total. The 1,600 balance are presumed to have been bought for government use.

Vaporizing type oilfired water heaters totalled 8,765, practically all of which were used in domestic installations.

Installed prices for water heaters increased considerably during the year. Mechanically fired water heater prices were up 23.6% to $277. Units with vaporizing burners were selling for 33.3% more, up to $140 installed. Wholesale prices on mechanical units were $175, and for vaporizing units $73.

These figures indicate a dollar volume for mechanical water heaters at retail of only $225,750 and a wholesale value of $422,625. Vaporizing water heaters had a retail value of $1,147,100, and a wholesale value of $639,845.

### Summary

Total dealer product sales at retail during 1943 amounted to little more than $17,000,000, exclusive of service and fuel-oil sales, off 57.5% from 1942.

If, as indicated at the end of the year, manufacturing of products for replacement and repair is speeded during 1944, and some of the restrictions on new installations of oilfired equipment are eased, it is probable that dealers will have more to sell in 1944 than in the year just ended. It seems probable that 1943 may have been the low point in the industry's history.

## Predict 1944 Building Will Be Third Under '43

NEW non-farm family dwelling units to be started in 1944 have been estimated by the Department of Labor at 225,000, a third less than the 344,000 units started in 1943. About 182,000 dwelling units, or more than half the total for 1943, were privately financed and it is expected that about the same number will be started by private funds in the year ahead.

The 1943 total is only two-thirds of the 496,600 units started in 1942, and less than half the post-depression high of 715,000 units in 1941. Privately financed residential building last year was three-fifths of that begun in 1942 and three-tenths of that in 1941. The 1943 total of private residential building was the lowest in any year since 1920, except in 1932-33-34. The expected decrease of 119,000 units this year will come entirely from Federally financed building.

Of the 182,000 privately financed dwelling units started in 1943, 135,000, or 74.5% were in 1-family houses, contrasted with an average of 77% 1-family houses in the prewar period. Two-family houses last year accounted for 17,600 dwelling units, or 9.7% of the total, against the prewar average of 5%. Multi-family structures provided 28,800 dwelling units, or 15.8%, contrasted with 18% prewar. The prewar trend was toward a larger percentage of dwelling units in 1-family houses, and fewer in buildings of three or more dwelling units.

Privately financed 1-family units started in 1943 declined 47% from the 1942 total. Two-family units increased slightly and the number of multi-family houses decreased 8%. More than 95% of the publicly financed family dwelling units started in 1943 were in temporary structures. In 1942 more than a quarter of all publicly financed dwelling units were permanent types. Both the reduced prominence of privately financed 1-family houses and the increased proportion of publicly financed temporary types is believed to have resulted from the need to conserve scarce building materials.

There was 36% fewer new units started in rural non-farm areas last year than in 1942, while the volume of units in urban areas declined 26%. The number of units started in cities of 2,500 to 5,000 population declined only 11%, and the greatest decrease, 36%, was in cities of 10,000 to 25,000 population.

The accompanying table shows a comparison of new dwelling units provided in non-farm areas in 1943 and 1942, both by geographic areas and by population groups.

**Estimated New Dwelling Units In Non-Farm Areas, 1943-42**

| *Population group* | 1943 | 1942 |
|---|---|---|
| Total nonfarm area ... | 344,000 | 496,600 |
| Percentage change .... | —30.7 | ... |
| Total urban ..... | 205,000 | 277,200 |
| 500,000 and over .. | 38,000 | 57,200 |
| 100,000 to 500,000 . | 49,500 | 58,400 |
| 50,000 to 100,000 .. | 23,300 | 30,400 |
| 25,000 to 50,000 ... | 20,300 | 27,100 |
| 10,000 to 25,000 ... | 39,200 | 61,000 |
| 5,000 to 10,000 .... | 21,800 | 28,600 |
| 2,500 to 5,000 ..... | 12,900 | 14,500 |
| Rural nonfarm ..... | 139,000 | 216,200 |
| *Geographic division* | | |
| All divisions ..... | 344,000 | 496,600 |
| Percentage change .... | —30.7 | ... |
| New England ..... | 11,400 | 22,300 |
| Middle Atlantic ..... | 30,700 | 61,400 |
| East North Central ... | 59,800 | 81,200 |
| West North Central .. | 11,400 | 24,200 |
| South Atlantic ..... | 69,700 | 95,400 |
| East South Central ... | 13,500 | 27,000 |
| West South Central .. | 40,300 | 45,300 |
| Mountain ..... | 20,700 | 14,600 |
| Pacific ..... | 86,500 | 125,200 |



INSULATION men from nine companies have been named to serve on OPA's Mineral Wool Installation Industry Advisory Committee to advise on a pricing.

## Range Oil Sales By Grades and by States for 1942 U. S. Bureau of Mines Figures

(In thousands of barrels)

NEW ENGLAND STATES

| 1 | Kero-sene | No. 1 Fuel | 1942 Total | 1941 Total |
|---|---|---|---|---|
| Massachusetts | 11,467 | 215 | 11,682 | 13,187 |
| Connecticut | 3,687 | 84 | 3,771 | 3,963 |
| Rhode Island | 2,208 | 84 | 2,292 | 2,495 |
| Maine | 1,582 | 45 | 1,627 | 1,827 |
| N. Hampshire | 884 | 30 | 914 | 907 |
| Vermont | 593 | .. | 593 | 638 |
| | 20,421 | 458 | 20,879 | 23,017 |

MIDDLE ATLANTIC STATES

| 2 | Kero. | No. 1 | 1942 | 1941 |
|---|---|---|---|---|
| New York | 6,917 | 211 | 7,128 | 7,711 |
| New Jersey | 3,323 | 126 | 3,449 | 3,626 |
| Pennsylvania | 895 | 24 | 919 | 949 |
| Maryland | 651 | 11 | 662 | 518 |
| Dist. of Col. | 104 | .. | 104 | 85 |
| Delaware | 84 | 1 | 85 | 95 |
| | 11,974 | 373 | 12,347 | 12,984 |

MIDDLE WESTERN STATES

| 3 | Kero. | No. 1 | 1942 | 1941 |
|---|---|---|---|---|
| Illinois | 1,455 | 1,334 | 2,789 | 2,185 |
| Michigan | 283 | 651 | 934 | 712 |
| Wisconsin | 240 | 541 | 781 | 616 |
| Iowa | 210 | 464 | 674 | 456 |
| Minnesota | 335 | 328 | 663 | 670 |
| Missouri | 451 | 102 | 553 | 477 |
| Ohio | 354 | 118 | 472 | 457 |
| Indiana | 198 | 241 | 439 | 355 |
| Nebraska | 154 | 23 | 177 | 199 |
| Kansas | 136 | 15 | 151 | 185 |
| N. Dakota | 71 | 36 | 107 | 119 |
| S. Dakota | 94 | 12 | 106 | 113 |
| | 3,981 | 3,865 | 7,846 | 6,544 |

WESTERN STATES

| 4 | Kero. | No. 1 | 1942 | 1941 |
|---|---|---|---|---|
| California | 91 | 2 | 93 | 108 |
| Montana | 33 | 26 | 59 | 72 |
| Colorado | 32 | 9 | 41 | 43 |
| Wyoming | 10 | 24 | 34 | 28 |
| New Mexico | 20 | 13 | 33 | 23 |
| Washington | 22 | 5 | 27 | 14 |
| Oregon | 15 | 2 | 17 | 12 |
| Utah | 6 | 10 | 16 | 21 |
| Arizona | 16 | .. | 16 | 12 |
| Idaho | 1 | 12 | 13 | 4 |
| Nevada | 2 | .. | 2 | .. |
| | 248 | 103 | 351 | 337 |

SOUTHERN STATES

| 5 | Kero. | No. 1 | 1942 | 1941 |
|---|---|---|---|---|
| N. Carolina | 775 | 10 | 785 | 667 |
| Florida | 635 | 19 | 654 | 628 |
| Texas | 552 | 6 | 558 | 416 |
| Georgia | 265 | 25 | 290 | 324 |
| S. Carolina | 191 | 48 | 239 | 206 |
| Virginia | 191 | 37 | 228 | 196 |
| Oklahoma | 135 | .. | 135 | 151 |
| Arkansas | 118 | 7 | 125 | 145 |
| Tennessee | 97 | 15 | 112 | 122 |
| Louisiana | 98 | 1 | 99 | 111 |
| Alabama | 76 | 5 | 81 | 76 |
| Kentucky | 70 | 1 | 71 | 81 |
| Mississippi | 59 | 5 | 64 | 52 |
| W. Virginia | 59 | .. | 59 | 53 |
| | 3,321 | 179 | 3,500 | 3,228 |

TOTAL UNITED STATES

| | Kero. | No. 1 | 1942 | 1941 |
|---|---|---|---|---|
| U. S. Total | 39,945 | 4,978 | 44,923 | 46,110 |

# U.S. Bureau of Mines Reports Fueloil Consumption Detail

TRENDS AND CHARACTERISTICS of fueloil consumption, by volume and types of use, for the year 1942 were released December 1st by the Bureau of Mines.

Total fueloil sales mounted to a new level in 1942, the fourth consecutive year of record-breaking deliveries. The demand for fueloil of all types was 592,146,000 barrels, a 7 percent gain above the 1941 totals, which had shown an 11 percent gain over 1940.

While the major shifts in 1942 were in uses other than heating (railroads up 25%, bunkering vessels down 31%), heating oils did show a small gain, from 167,514,000 barrels in 1941 to 168,989,000, even though rationing had been in effect during the last quarter of the year. Some hundred thousand burners had been installed in the first few months of 1942, the winter months had been colder than the year before, and these expansion factors more than offset the rationing shrinkage.

Conservation and conversion to other fuels resulted in a 13% decline in deliveries to gas and electric utilities. Smelters, mines and manufacturing plants running full blast to satisfy war demands increased their fueloil requirements by 10 percent.

Deliveries of distillate fueloils (including diesel fuel and No. 1 grade marketed as range oil) of 186,813,000 barrels were 8 percent above the 1941 total, while residual demand rose 6 percent to 405,333,000 barrels.

The demand for both light and heavy fueloil has shown a strong upward trend in 1943, a normal expansion under present war conditions and also probably a reaction of a market which was undersupplied in 1942 because of transportation difficulties. Distillate fueloil deliveries for nine months of 1943 were 153 million barrels, a gain of 14 percent over the corresponding period of 1942. The indicated demand for residual fueloil through September 1943 was up similarly, increasing to about 336 million barrels for the nine months, a 13 percent rise. The kerosene market in 1943 has remained relatively static as the nine-month total of 49 million barrels is about 4 percent below the January-September demand of 1942.

The market for light or domestic heating oils (Grades 1-4) of 121,506,000 barrels in 1942 was little above the 1941 total of 120,908,000, while sales of heavy heating oils (Grades 5 & 6) increased two percent to 47,483,000 in 1942. Light heating oils constituted 65 percent of total deliveries of distillate fueloils for all purposes in 1942, compared with 70 percent in 1941, while residual heating oils were approximately 12 percent of all residuals in both years.

Heating oils showed the greatest expansion in the Pacific Coast area, where sales in 1942 were up 19 percent to 15,463,000 barrels. Rationing and inadequate supplies caused a two percent decline in East Coast heating oil deliveries, with the New England states hardest hit, and showing a loss of 11 percent.

The distribution of range oil was subject to the same difficulties, and because nearly half of all range oil is sold in New England, the reason for a substantial drop in the country's total is clear.

## Fueloil Sales 1938-1942, by Uses

(In millions of barrels)

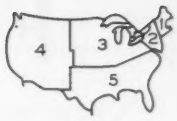
| DISTILLATE | | | | | USES | RESIDUAL | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1938 | 1939 | 1940 | 1941 | 1942 | | 1938 | 1939 | 1940 | 1941 | 1942 |
| 82 | 97 | 116 | 121 | 122 | Heating | 36 | 39 | 45 | 47 | 47 |
| 3 | 3 | 4 | 4 | 5 | No. 1 Sold as Range | .. | .. | .. | .. | .. |
| 2 | 2 | 3 | 5 | 6 | Railroads | 56 | 61 | 65 | 81 | 100 |
| 13 | 14 | 13 | 11 | 9 | Vessels | 61 | 65 | 62 | 57 | 38 |
| 4 | 4 | 5 | 5 | 6 | Utilities | 24 | 28 | 28 | 34 | 28 |
| 5 | 6 | 7 | 10 | 13 | Industrial | 59 | 61 | 67 | 78 | 85 |
| 1 | 1 | 1 | 1 | 1 | Oil Company Fuel | 43 | 48 | 51 | 54 | 45 |
| 7 | 11 | 12 | 15 | 26 | All Other Uses | 16 | 16 | 21 | 31 | 63 |
| 117 | 139 | 161 | 173 | 187 | TOTAL | 290 | 318 | 338 | 381 | 405 |

## Heating Oil Sales

## By Grades and by States

### Official U. S. Bureau of Mines Figures

(In thousands of 42-gallon barrels)




NEW ENGLAND STATES

| 1942 | | | | Total Distillate | | | 1942 | | Total Residuum | | Grand Totals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. 1 | No. 2 | No. 3 | No. 4 | 1942 | 1941 | 1 | No. 5 | No. 6 | 1942 | 1941 | 1942 | 1941 |
| 251 | 8,902 | 309 | 196 | 9,658 | 11,777 | Massachusetts | 465 | 3,848 | 4,313 | 4,741 | 13,971 | 16,518 |
| 67 | 4,027 | 301 | 153 | 4,548 | 4,915 | Connecticut | 490 | 1,149 | 1,639 | 1,601 | 6,187 | 6,516 |
| 41 | 2,058 | 274 | 53 | 2,426 | 2,492 | Rhode Island | 20 | 802 | 822 | 915 | 3,248 | 3,407 |
| 13 | 964 | 36 | 21 | 1,034 | 1,239 | N. Hampshire | 6 | 294 | 300 | 191 | 1,334 | 1,430 |
| 52 | 940 | 5 | 19 | 1,016 | 1,158 | Maine | 1 | 207 | 208 | 259 | 1,224 | 1,417 |
| 1 | 535 | 12 | 2 | 550 | 595 | Vermont | 23 | 85 | 108 | 110 | 658 | 705 |
| 425 | 17,426 | 937 | 444 | 19,232 | 22,176 | | 1,005 | 6,385 | 7,390 | 7,817 | 26,622 | 29,993 |

MIDDLE ATLANTIC STATES

| No. 1 | No. 2 | No. 3 | No. 4 | 1942 | 1941 | 2 | No. 5 | No. 6 | 1942 | 1941 | 1942 | 1941 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 854 | 21,424 | 1,955 | 1,012 | 25,245 | 25,822 | New York | 1,072 | 9,190 | 10,262 | 10,227 | 35,507 | 36,049 |
| 72 | 10,279 | 676 | 872 | 11,899 | 11,165 | New Jersey | 1,267 | 2,944 | 4,211 | 3,547 | 16,110 | 14,712 |
| 251 | 4,372 | 1,009 | 453 | 6,085 | 6,208 | Pennsylvania | 1,602 | 2,664 | 4,266 | 4,014 | 10,351 | 10,222 |
| 30 | 2,352 | 201 | 151 | 2,734 | 2,472 | Maryland | 53 | 796 | 849 | 861 | 3,583 | 3,333 |
| 27 | 1,770 | 4 | 18 | 1,819 | 1,759 | Dist. of Col. | 22 | 659 | 681 | 678 | 2,500 | 2,437 |
| .. | 225 | 152 | 18 | 395 | 347 | Delaware | 22 | 129 | 151 | 41 | 546 | 388 |
| 1,234 | 40,422 | 3,997 | 2,524 | 48,177 | 47,773 | | 4,038 | 16,382 | 20,420 | 19,368 | 68,597 | 67,141 |

MIDDLE WESTERN STATES

| No. 1 | No. 2 | No. 3 | No. 4 | 1942 | 1941 | 3 | No. 5 | No. 6 | 1942 | 1941 | 1942 | 1941 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,965 | 4,601 | 6,864 | 339 | 13,769 | 13,463 | Illinois | 2,786 | 2,777 | 5,563 | 5,297 | 19,332 | 18,760 |
| 936 | 2,956 | 1,265 | 44 | 5,201 | 4,953 | Minnesota | 423 | 158 | 581 | 708 | 5,782 | 5,661 |
| 1,489 | 1,822 | 1,265 | 103 | 4,679 | 4,156 | Michigan | 1,369 | 437 | 1,806 | 1,699 | 6,485 | 5,855 |
| 599 | 1,484 | 2,191 | 66 | 4,340 | 4,617 | Missouri | 1,342 | 388 | 1,730 | 1,911 | 6,070 | 6,528 |
| 505 | 2,002 | 1,708 | 32 | 4,247 | 4,321 | Wisconsin | 563 | 264 | 827 | 970 | 5,074 | 5,291 |
| 556 | 1,173 | 421 | 29 | 2,179 | 1,914 | Iowa | 257 | 52 | 309 | 389 | 2,488 | 2,303 |
| 237 | 675 | 553 | 21 | 1,486 | 1,517 | Indiana | 480 | 278 | 758 | 821 | 2,244 | 2,338 |
| 185 | 295 | 964 | 26 | 1,470 | 1,584 | Nebraska | 206 | 32 | 238 | 297 | 1,708 | 1,881 |
| 349 | 266 | 741 | 14 | 1,370 | 1,161 | Ohio | 155 | 82 | 237 | 227 | 1,607 | 1,388 |
| 147 | 212 | 93 | 1 | 453 | 424 | S. Dakota | 15 | 8 | 23 | 32 | 476 | 456 |
| 125 | 170 | 86 | 1 | 382 | 334 | Kansas | 24 | 56 | 80 | 121 | 462 | 455 |
| 68 | 217 | 45 | .. | 330 | 318 | N. Dakota | 10 | .. | 10 | 14 | 340 | 332 |
| 7,161 | 15,873 | 16,196 | 676 | 39,906 | 38,762 | | 7,630 | 4,532 | 12,162 | 12,486 | 52,068 | 51,248 |

WESTERN STATES

| No. 1 | No. 2 | No. 3 | No. 4 | 1942 | 1941 | 4 | No. 5 | No. 6 | 1942 | 1941 | 1942 | 1941 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,946 | .. | 1,860 | .. | 3,806 | 2,899 | California | 2,818 | 451 | 3,269 | 2,814 | 7,075 | 5,713 |
| 1,244 | .. | 1,699 | .. | 2,943 | 2,557 | Washington | 1,257 | 638 | 1,895 | 1,806 | 4,838 | 4,363 |
| 517 | .. | 1,023 | .. | 1,540 | 1,442 | Oregon | 604 | 411 | 1,015 | 824 | 2,555 | 2,266 |
| 138 | .. | 329 | .. | 467 | 292 | Nevada | 105 | 8 | 113 | 52 | 580 | 344 |
| 247 | .. | 121 | .. | 368 | 240 | Arizona | 46 | 1 | 47 | 32 | 415 | 272 |
| 54 | 123 | 11 | 5 | 193 | 216 | Colorado | 6 | 10 | 16 | 14 | 209 | 230 |
| 77 | 5 | 58 | .. | 140 | 97 | Idaho | .. | 8 | 8 | 2 | 148 | 99 |
| 28 | 13 | 76 | 3 | 120 | 52 | Utah | .. | .. | .. | .. | 120 | 52 |
| 13 | 39 | 47 | 1 | 100 | 118 | Montana | .. | 10 | 10 | 27 | 110 | 145 |
| 60 | 28 | 5 | .. | 93 | 78 | Wyoming | .. | .. | .. | .. | 93 | 78 |
| 12 | 26 | 21 | .. | 59 | 43 | New Mexico | .. | 6 | 6 | 8 | 65 | 51 |
| 4,336 | 234 | 5,250 | 9 | 9,829 | 8,034 | | 4,836 | 1,543 | 6,379 | 5,579 | 16,208 | 13,613 |

SOUTHERN STATES

| No. 1 | No. 2 | No. 3 | No. 4 | 1942 | 1941 | 5 | No. 5 | No. 6 | 1942 | 1941 | 1942 | 1941 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 61 | 1,171 | 87 | 2 | 1,321 | 1,187 | Virginia | 4 | 238 | 242 | 290 | 1,563 | 1,477 |
| 157 | 319 | 130 | 18 | 624 | 637 | Florida | 30 | 436 | 466 | 518 | 1,090 | 1,155 |
| 66 | 120 | 302 | 9 | 497 | 391 | N. Carolina | .. | 31 | 31 | 45 | 528 | 436 |
| 99 | 160 | 71 | 32 | 362 | 253 | Louisiana | 18 | 76 | 94 | 104 | 456 | 357 |
| 42 | 160 | 147 | 4 | 353 | 355 | Georgia | 10 | 53 | 63 | 89 | 416 | 444 |
| 45 | 134 | 114 | 24 | 317 | 358 | Texas | 52 | 65 | 117 | 160 | 434 | 518 |
| 23 | 150 | 18 | 6 | 197 | 172 | S. Carolina | 11 | .. | 11 | 8 | 208 | 180 |
| 30 | 93 | 69 | .. | 192 | 209 | Kentucky | 7 | 79 | 86 | 65 | 278 | 274 |
| 12 | 84 | 34 | .. | 130 | 195 | Arkansas | .. | 3 | 3 | .. | 133 | 195 |
| 45 | 51 | 8 | 1 | 105 | 109 | Oklahoma | .. | 13 | 13 | 70 | 118 | 179 |
| 15 | 20 | 63 | .. | 98 | 92 | Alabama | .. | 1 | 1 | .. | 99 | 92 |
| 13 | 13 | 43 | .. | 69 | 98 | Tennessee | .. | 5 | 5 | 6 | 74 | 104 |
| 2 | 47 | 6 | .. | 55 | 61 | W. Virginia | .. | .. | .. | 1 | 55 | 62 |
| .. | 24 | 18 | .. | 42 | 46 | Mississippi | .. | .. | .. | .. | 42 | 46 |
| 610 | 2,546 | 1,110 | 96 | 4,362 | 4,102 | | 132 | 1,000 | 1,132 | 1,356 | 5,494 | 5,519 |

TOTAL UNITED STATES

| No. 1 | No. 2 | No. 3 | No. 4 | 1942 | 1941 | | No. 5 | No. 6 | 1942 | 1941 | 1942 | 1941 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13,766 | 76,501 | 27,490 | 3,749 | 121,506 | 120,908 | U. S. A. | 17,641 | 29,842 | 47,483 | 46,606 | 168,989 | 167,514 |

# Fueloil Distributor Trends

## Nationally, Heating Distillates Drop 23%, Kerosene 10% in 1943

IN THE FIRST FULL YEAR of rationing, 1943, fueloil distributors with few exceptions managed to stay in harness and to maintain in high degree their customers' acceptance of oilheating as an element in better living. This was accomplished under the most difficult operating conditions, for both distributor and consumer, that the industry has ever faced.

The fact that consumer acceptance of oil as a fuel is strong as ever is eloquently attested by the number of reconversions to oil after converting to coal, following the scare headlines of last winter that oil-heated homes were about to freeze, or under pressure from local boards who wouldn't allow additional rations if the heating plant was convertible.

Domestic reconversions to the end of December equalled one-seventh of those that had converted in the 18 months since the oil shortage scare took root. The number of reconversions is reported in another section of this issue.

Not only have several thousand homes already gone back to oil, but more significant is the statement by reporting fueloil distributors that 95% of their customers who converted to coal definitely plan going back to oil as quickly as we lick Hitler and they are assured supply.

In the year's struggle with reduced sales volume, acute manpower shortages and general rationing regulation difficulties, distributors had a wide variety of experiences; few of them make reports even approximately identical in measuring their results. There were important differences between geographic areas, as shown by the impact of rationing measured in gallonage cuts in the following table:

**Volume Cut by Rationing**

| | *Kero.* | *Dist.* | *Resid.* |
|---|---|---|---|
| New England | 26.9% | 27.0% | ..* |
| Middle Atlantic | 6.6 | 28.3 | 41.8% |
| Middle West | 1.5 | 14.8 | 69.4 |
| Pacific Northwest | 12.3 | 15.7 | 6.3 |

The widest variations were in kerosene, with reasons not too hard to find. The rationing program, as set up for last season, made too liberal kerosene allowances for heating, by requiring boards to follow a square-foot formula where the applicant had no clear record of his previous season's consumption, which few had.

This worked fairly well in New England, where half of the country's kerosene is burned, because hundreds of thousands of New Englanders do their entire heating and cooking job with kerosene. In most instances they needed the full square foot area allowance and yet were decidedly chilly, as had been expected under ration cuts. Another factor that cut New England kerosene consumption was the very severe product shortage in that area.

### Kerosene Auxiliary

In the Mid-Atlantic and Midwest regions, however, relatively few homes or apartments (except Brooklyn's cold-water flats) do the whole job with kerosene—by and large their kerosene heating is auxiliary to something else. True, if an applicant showed that he heated with both coal and kerosene, the boards were supposed to give him a ration to represent only the square footage heated by kerosene, but in many cases that was too much.

When a home in those areas uses both coal and kerosene, it frequently uses the oil space heater in mild Spring and Fall weather, then starts the coal furnace with cold weather and will not use both at the same time unless the day is extremely frigid. Under these conditions, the boards, operating strictly within regulations, issued too many coupons and the user could burn as much kerosene as in normal times.

That loophole has now been plugged by a change in rationing regulations that instructs boards to issue a space heater ration representing two-thirds of what they believe the applicant's normal needs would have been but not more than the floor area guide.

In the Pacific Northwest the kerosene cut was minimized by the late rationing start, but this was partly offset by the greater oil consumption of the average cooking range. Most cooking there is done in pot-type range burners, with higher consumption rate than the conventional sleeve-type. So the cooking oil cut there was greater than in other regions.

The light distillate cut in the Midwest is largely explained by higher coupon values announced when the thermometer was scraping bottom and oil supplies were not. The heavy residual cuts shown in Mid-Atlantic and Midwest were stimulated by conversion activities of PAW engineers. Substantially all of the residual gallonage reported could be considered heating oil rather than industrial.

It is customary to visualize a fueloil distributor as a company operating one or more bulk plants, a fleet of retail delivery trucks, in addition to engaging in various marginal activities, such as perhaps oilburner sales and service.

While all do operate truck fleets, many do not have their own bulk plants, getting their supplies under-the-fill at other plants. Percent of distributors with their own bulk plants, average plant storage capacities, and average gallonage sold and rates of turnover, by regions are:

**Bulk Storage Plants**

| | *New Eng.* | *Mid. Atl.* | *Mid-west* | *Pac. N.W.* |
|---|---|---|---|---|
| Percent with plants | 56 | 57 | 89 | 56 |
| Avg. Storage Capacity in thous. gals. | | | | |
| Kerosene | 36 | 32 | 33 | 21 |
| Distillate | 51 | 144 | 84 | 33 |
| 1943 Sales in thous. gals. | | | | |
| Kerosene | 377 | 268 | 273 | 153 |
| Distillate | 569 | 2004 | 878 | 605 |
| Annual turnover of storage cap. (times) | | | | |
| Kerosene | 10 | 8 | 8 | 7 |
| Distillate | 11 | 14 | 10 | 18 |

Including both those distributors who operate bulk plants and those who do not, the average number of customers per distributor and the average gallonage per customer, for the year 1943, were:

**Customers and Consumption**

| | *New Eng.* | *Mid. Atl.* | *Mid-west* | *Pac. N.W.* |
|---|---|---|---|---|
| Kerosene: | | | | |
| Customers | 583 | 510 | 318 | 279 |
| Avg. gals. | 624 | 467 | 451 | 614 |
| Distillate: | | | | |
| Res. heating | | | | |
| Customers | 409 | 910 | 351 | 541 |
| Avg. gals. | 1542 | 1361 | 1469 | 1187 |
| Com'l. Htg. | | | | |
| Customers | 28 | 59 | 28 | 30 |
| Avg. gals. | 3839 | 5160 | 3116 | 4855 |

*Too few returns to be representative.

Fueloil distributors operated with 11 percent less tank trucks in 1943 than in the year before, the average of all reporting having declined from 4.3 trucks per company to 3.8 trucks. Reduction in sales due to rationing should allow a larger drop in trucks operating if delivery expenses were to be held constant, but clearly this could not be done. It has been necessary under rationing to make about as many drops as before, with the reduction showing up in less gallons per drop.

Pacific Northwest operators made the widest use of their trucks, averaging over 12,000 miles per truck while those in the Midwest turned in the smallest average mileage at 7,520. Number of trucks per distributor, mileage operated, customers served and gallonage delivered per truck are shown in the table that follows:

**Tank Truck Operation**

| | New Eng. | Mid. Atl. | Mid-west | Pac. N.W. |
|---|---|---|---|---|
| No. of trucks | | | | |
| 1943 | 3.3 | 4.8 | 3.2 | 3.4 |
| 1942 | 3.7 | 5.3 | 3.8 | 3.6 |
| % Decrease | 11 | 9 | 16 | 6 |
| Miles per truck | 9580 | 10509 | 7520 | 12040 |
| Customers, all types, per truck | 298 | 263 | 220 | 358 |
| Miles per customer | 32 | 40 | 34 | 34 |
| Gallons per truck per season (thous.) | 301 | 366 | 212 | 445 |
| Gallons delivered per truck mile | 32 | 29 | 35 | 27 |

The last line in the foregoing table, gallons per truck mile, is the best single index of overall delivery efficiency. The weighted average for the four principal fueloil consuming areas for 1943 is 31.2 gallons per truck mile. This compares with 34.5 gallons, the national average for 1942, and indicates a decrease in truck operating efficiency of about 10 percent under rationing. Midwestern states again show the best score in gallons per mile, largely because customer tanks, and thus average drops, are larger.

Another important yardstick in effective fueloil distribution is the percent of distributors in each section who operate automatic delivery systems. When rationing started in the Fall of 1942 many companies previously offering automatic delivery service threw up their hands and said it couldn't be done under the complications of unpredictable consumption rates. But some did stick it out and were surprised to find that it wasn't a hopeless undertaking. As a result the start of the present season found others resuming this particularly useful service to consumers, and to their own operating effectiveness.

To properly handle automatic deliveries it is highly desirable that customers coupons be deposited with the distributor, but only reasonable success has been had in coaxing them to do it. At present 45% of fueloil distributors use automatic systems, compared with 41% reporting at this same time a year ago. It is important to note, however, that it is usually the larger companies that have such systems, so a larger percentage of total oil consumed is delivered automatically.

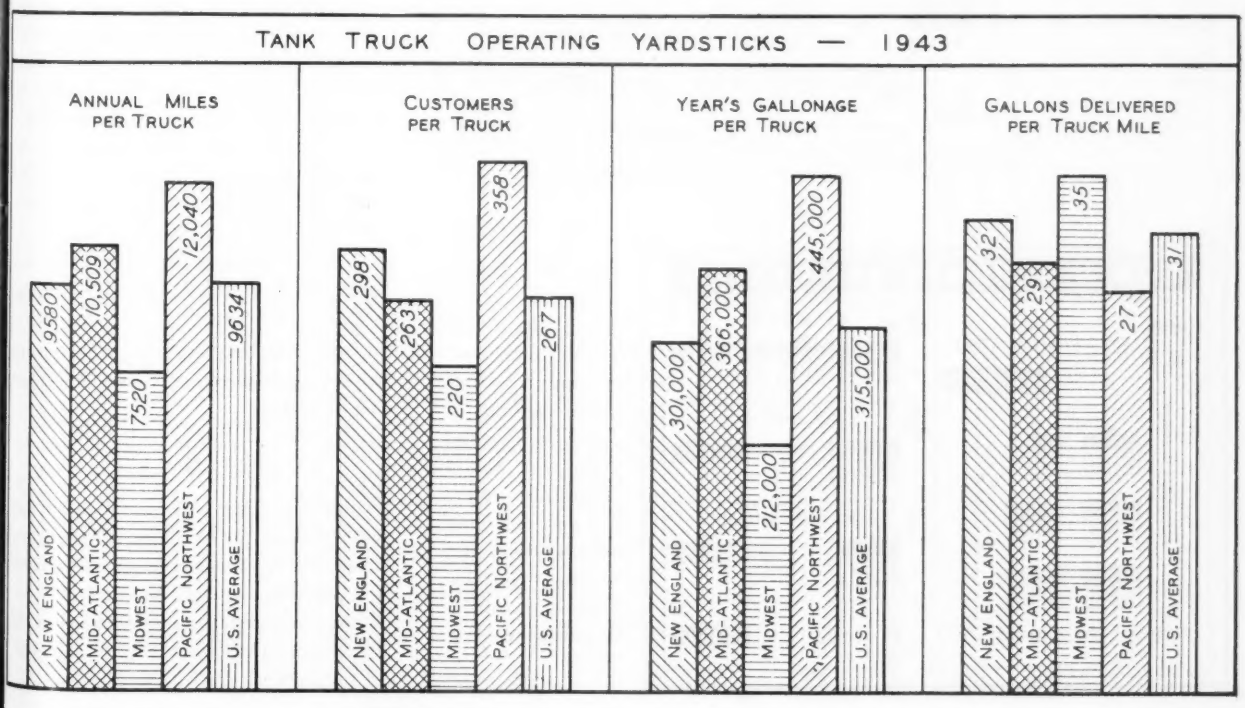
The table that follows sets forth percentages by regions of companies with automatic systems, percent of coupons deposited, both with and without automatic systems.

**Automatic Deliveries**

| | New Eng. | Mid. Atl. | Mid-west | Pac. N.W. |
|---|---|---|---|---|
| % of firms using auto dely. | 35 | 61 | 21 | 78 |
| % of coupons, deposited, all Co.'s | 59 | 74 | 65 | 73 |
| % of coupons deposited, Co.'s with auto. deliveries | 66 | 89 | 71 | 81 |

An increasingly important activity of fueloil distributors, especially in some sections of the country, is the servicing and sale of oilburners. With a virtual ban on sales other than replacements, the major oilburner activity is service, but it is these integrated companies that can be expected to account for an important share of postwar oilburner sales because they have been able to maintain active staffs and close consumer contact when many heating contractors were inactive.

The percent of fueloil distributors in principal areas who service oilburners, and the percent of total burner service work in their areas done by them are:



### Burner Service by Oil Retailers

| | New Eng. | Mid. Atl. | Mid-west | Pac. N.W. |
|---|---|---|---|---|
| % of F. O. Dist's. servicing burners | 64 | 65 | 19 | 50 |
| % of all burners serviced by fuel-oil distributors.. | 63 | 88 | 17 | 41 |
| % of all heating oil sold by F. O. Distr's who render burner service | 61 | 76 | 16 | 29 |

The overall integration of fueloil distribution and oilburner servicing is somewhat more than half way for each activity. In other words, on a national basis, 49.5% of all retail fueloil distributors have oilburner service departments. Those integrated companies, also on a national weighted average, service 57% of all burners now operating; moreover, these two-way companies sell nationally 50.3% of all heating oil consumed.

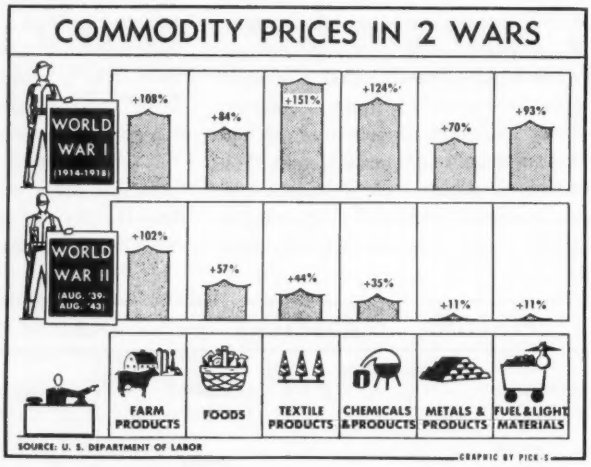
Lest these data appear to conflict with the percentages shown in the dealer article on page 35, it is necessary to point out that the dealer article is relating present activity to the business origin of companies, while in this story the fueloil distributor is any company now selling oil although it may originally have been a burner dealer, heating contractor, or whatever.

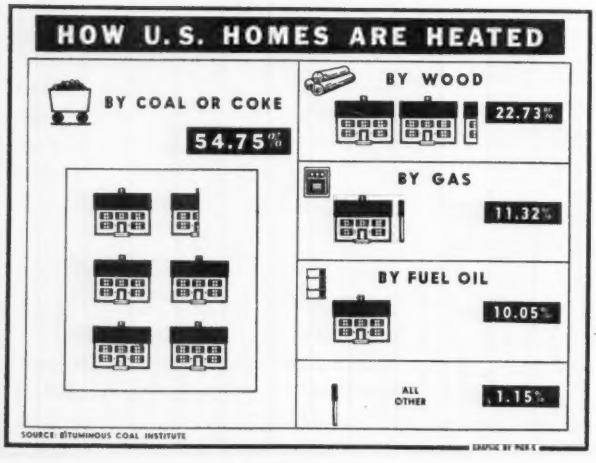
New equipment purchases by fueloil distributors in 1943 were held down by priority difficulties, by the necessity to economize and by ability to rob a laid-up truck to get equipment for another. However, some equipment had to be bought, as the table shows:

### Fueloil Handling Equipment

| | Purchased, per 1,000 Customers | Indicated Total Purchases |
|---|---|---|
| Tank trucks | .63 | 1,688 |
| Tank trailers | .15 | 402 |
| Fueloil hose, ft. | 304 | 814,400 |
| Truck meters | .82 | 2,197 |
| Bulk plant meters | .17 | 455 |
| Trunk pumps | .90 | 2,411 |
| Bulk plant pumps | .19 | 509 |

**Price Control** *has proven effective in preventing the degree of inflation we had in the last war. But it seems that fuel prices have been held down tighter than prices of other items.*




**The fuel** *percentages shown on this chart are from the 1940 Census. Stoves were included as well as central heating plants. There are more than twice as many oil central heating installations as gas, as explained on page 32.*

## Service Men "Critical" In New W.M.C. Ruling

REPAIR AND INSTALLATION men for oil-burning equipment have been added to the list of critical occupations in a January 4 ruling of the War Manpower Commission. Conserving the industry's manpower, the ruling has two implications: selective service boards are on notice to defer such men when possible; men cannot leave present jobs for others without approval of U. S. Employment Service.

Before calling an occupation critical, WMC determines that the acute shortage of the skill impedes or threatens war production; the occupation requires lengthy training; replacements cannot readily be made by upgrading; the occupation fills a definite need in maintaining current war production.

## L-74 Now Allows Free Emergency Replacements

ONE RAIL was lifted from the fence around domestic oilburner replacements on January 4, when L-74 was amended to permit restriction-free replacement from dealer stocks of all burners more than 10 years old, or those beyond repair. Removed burners must be scrapped.

Replacement of burners other than the 10-year-olds or those completely out of running order must be made only after approval of the district WPB office of a Form WPB 1319. A simplified Form 2727 will be used to get burners from manufacturers, but burners now may move at the dealer-distributor level without any advance approval.

New installations still require approval in writing from PAW, and a ration from OPA's local board.

Industrial, distillate and pot type burners can be delivered only on a AA-5 rating or higher.

FUEL OIL Industry Advisory Council met with rationing officials at Washington, December 7, primarily to afford members the opportunity of meeting Chester Bowles, administrator, and Colonel Bryan Houston, deputy administrator in charge of rationing.

# THE BIG JOB

Mercoid Controls are still being built and sold though the volume is almost entirely on industrial types. These carry the highest war priority and find their way into war plants everywhere throughout the country, where they are doing their important part in the big job of essential production.

**AUTOMATIC CONTROLS FOR HEATING, AIR CONDITIONING, REFRIGERATION AND NUMEROUS INDUSTRIAL APPLICATIONS**

**MADE BY THE MERCOID CORPORATION, 4213 BELMONT AVENUE, CHICAGO 41, ILLINOIS**

## More Kerosene Promised By Relaxing Specifications

A RELAXATION of the present straight specifications of kerosene marketed in the East Coast, which, in effect, will increase its production, was ordered Dec. 27 by Petroleum Administrator for War Harold L. Ickes.

In an amendment to the specifications for principal petroleum products marketed on the East Coast (District 1) under its Directive 59, PAW ordered stabilization of kerosene and distillate fuel oil quality on a basis that will permit greater refinery yields of kerosene without, however, impairing the quality of the products to any noticeable degree so far as heating and lighting efficiency is concerned.

Administrator Ickes explained that the current, relatively easier situation in lighter fuel oils, at which expense the adjustment is made, warrants the change in order to maintain the present satisfactory, though tight, supply of kerosene.

Refiners throughout the country have already been asked to increase their kerosene yields whenever consistent with continued maximum production of essential war products. The present relaxation in kerosene specifications is expected to hasten this action by allowing refiners producing kerosene for sale in District 1 to take a greater "cut" from the crude oil.

The specification changes include raising the maximum temperature for the 10% point for No. 1 oil from 410 to 420° and for No. 2 oil from 440 to 460°, which will enable refiners to run the lighter ends of the distillates to kerosene. Also the burning test for kerosene required by Federal Specification VV-K-211A is reduced from 24 hours to 16 hours, which will allow a heavier kerosene.

### DEGREE DAY TABLES

| ONE MONTH ONLY | | | | | SEASON TO DATE (Sept. 1 to Nov. 30) | | | |
|---|---|---|---|---|---|---|---|---|
| November | | | Percent | | | | | Percent |
| Normal | 1942 | 1943 | Change* | | Normal | 1942 | 1943 | Change* |
| 756 | 799 | 871 | + 15.2 | Albany | 1282 | 1391 | 1527 | + 19.1 |
| 393 | 335 | 427 | + 8.7 | Atlanta | 535 | 449 | 597 | + 15.8 |
| 531 | 484 | 536 | + 0.9 | Baltimore | 795 | 683 | 863 | + 8.6 |
| 651 | 646 | 648 | — 0.5 | Boston | 1087 | 1037 | 1123 | + 3.3 |
| 747 | 739 | 827 | + 10.7 | Buffalo | 1282 | 1260 | 1530 | + 19.3 |
| 709 | 723 | 863 | + 21.7 | Chicago | 1127 | 1285 | 1393 | + 23.6 |
| 613 | 548 | 679 | + 10.8 | Cincinnati | 939 | 938 | 1056 | + 12.5 |
| 677 | 673 | 771 | + 13.9 | Cleveland | 1080 | 1142 | 1326 | + 22.8 |
| 298 | 219 | 317 | + 6.4 | Dallas | 373 | 333 | 401 | + 7.5 |
| 721 | 657 | 680 | — 5.7 | Denver | 1260 | 1233 | 1117 | — 11.3 |
| 768 | 738 | 880 | + 14.5 | Des Moines | 1224 | 1249 | 1414 | + 15.5 |
| 774 | 717 | 804 | + 3.9 | Detroit | 1320 | 1270 | 1422 | + 7.7 |
| 768 | 720 | 825 | + 7.4 | Grand Rapids | 1327 | 1297 | 1451 | + 9.3 |
| 691 | 703 | 752 | + 8.8 | Hartford | 1165 | 1147 | 1286 | + 10.4 |
| 940 | 1026 | 964 | + 2.6 | Helena | 1829 | 1872 | 1738 | — 5.0 |
| 162 | 121 | 195 | + 20.4 | Houston | 189 | 146 | 236 | + 24.9 |
| 663 | 582 | 745 | + 12.4 | Indianapolis | 1027 | 981 | 1163 | + 13.2 |
| 599 | 553 | 698 | + 16.5 | Kansas City | 891 | 907 | 1041 | + 16.8 |
| 110 | 106 | 52 | — 52.7 | Los Angeles | 158 | 145 | 102 | — 35.4 |
| 550 | 483 | 618 | + 23.6 | Louisville | 802 | 798 | 852 | + 6.2 |
| 788 | 780 | 873 | + 10.8 | Milwaukee | 1317 | 1474 | 1498 | + 13.7 |
| 943 | 944 | 1066 | + 13.0 | Minneapolis | 1590 | 1683 | 1782 | + 12.1 |
| 147 | 101 | 199 | + 35.4 | New Orleans | 170 | 123 | 259 | + 52.4 |
| 600 | 555 | 607 | + 1.2 | New York | 925 | 810 | 989 | + 6.9 |
| 741 | 727 | 877 | + 18.3 | Omaha | 1147 | 1221 | 1366 | + 19.1 |
| 548 | 515 | 574 | + 4.7 | Philadelphia | 820 | 760 | 902 | + 10.0 |
| 656 | 675 | 697 | + 6.3 | Pittsburgh | 1049 | 1093 | 1213 | + 15.7 |
| 792 | 864 | 828 | + 4.5 | Portland, Me. | 1430 | 1560 | 1558 | + 9.0 |
| 540 | 558 | 493 | — 9.5 | Portland, Ore. | 947 | 843 | 787 | — 16.8 |
| 675 | 640 | 639 | — 5.3 | Providence | 1142 | 1016 | 1100 | — 3.7 |
| 558 | 492 | 637 | + 14.2 | St. Louis | 812 | 805 | 912 | + 12.3 |
| 712 | 733 | 749 | + 5.2 | Salt Lake City | 1184 | 1225 | 1109 | — 6.3 |
| 242 | 271 | 172 | — 28.9 | San Francisco | 504 | 560 | 404 | — 19.8 |
| 990 | 1006 | 1012 | + 2.2 | Sault Ste. Marie | 1906 | 1930 | 2008 | + 5.4 |
| 558 | 581 | 497 | — 10.9 | Seattle | 1104 | 992 | 908 | — 17.8 |
| 721 | 683 | 818 | + 13.5 | Toledo | 1188 | 1195 | 1449 | + 22.0 |
| 558 | 504 | 551 | — 1.3 | Washington | 855 | 716 | 893 | + 4.4 |

*Compared with normal

## OPA Allows Half Cent Surcharge Under 100 Gal.

UNIFORM SURCHARGES for tankwagon deliveries of less than 100 gallons of Nos. 2, 3 and 4 distillate fuel oils in 15 Atlantic States and the District of Columbia were announced by the Office of Price Administration.

A premium of no more than half a cent a gallon over the per-gallon ceiling for 150 gallons or more may now be added for these small-lot deliveries by sellers who determine their maximum prices by formula under the petroleum products regulations.

This principle of half a cent a gallon surcharge for deliveries of less than 100 gallons, and no surcharge for any delivery of 100 gallons and over, already is applicable to specific cents-per-gallon ceilings for these oils. The new action extends the principle to formula ceilings.

Sellers who have charged extra for deliveries from 100 to 150 gallons in the past now can make no surcharge for deliveries of 100 gallons and over.

BOILER SHORTAGES have become so acute that WPB has appealed to contractors and dealers to help conserve the available supply for emergency replacement purposes, and to repair and recondition all boilers that can be kept in service. When emergency replacements cannot be obtained under the AA-5 allowed by P-84, dealers are asked to apply to the nearest WPB field office for an emergency rating.

©M&M

# What's happened to SAM?

WELL . . . maybe he took the hint and "scrammed" . . . possibly clear into the Army. But the boiler can't scram; and difficult though it may be to replace Sam, it's still harder today to replace the boiler!

Yes, hundreds of boilers like this are vital, directly or indirectly, to every phase of the war effort. Many of them are up against tougher conditions than they have ever before encountered. They *must* be kept in service. Yet, paradoxically enough, attendants have very little time today to watch the water glass.

The importance of protecting these all-but-irreplaceable boilers from low water damage is fully recognized. And therefore McDonnell Boiler Water Feeders and Low Water Cut-offs are available for all applications where protection is essential.

A set of installation and wiring diagrams covering today's special needs and specifications has been compiled in a convenient letter-size kit that you will find particularly useful.

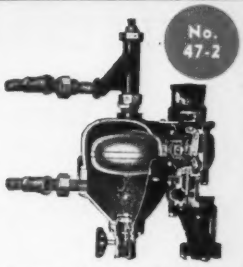
***Write today for your copy.***

**McDONNELL & MILLER, 1310 Wrigley Bldg., Chicago, Illinois**

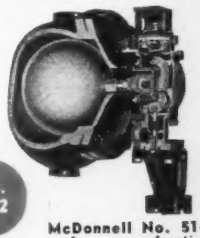
*Doing One* SAFETY CONTROLS *Thing Well*

# McDONNELL

**BOILER FEEDERS • LOW WATER CUT-OFFS**
**LIQUID LEVEL CONTROLS • RELIEF VALVES**




**McDonnell No. 47-2** Quick-Hook-Up Boiler Water Feeder with switch used for low water cut-off or alarm circuit. For boilers below 5000 sq. ft.; maximum steam pressure, 25 lbs.




**McDonnell No. 51-2** performs same functions as 47-2 for boilers above 5000 sq. ft.; maximum steam pressure, 35 lbs.

**McDonnell No. 150** for boilers of any size; maximum steam pressure, 150 lbs. Used as feed-pump control, low water cut-off, or low water alarm. Furnished with or without manual reset.

**McDonnell No. 67** Quick-Hook-Up Low Water Cut-off for automatically fired boilers of any size. Maximum steam pressure, 25 lbs.

### *Oilheating Trends*

(*Continued from page 11*)

most critical in coal history, with a nation-wide staff of only 40 employees.

FUELOIL BAIL-OUT: Under considerable pressure from dealers, OPA devised a procedure for reporting stock and coupon losses, developed Form 1120 and instructed anyone who wanted to be brought back into balance to file the form and hope for the best. It was clearly understood that if losses represented only ordinary business wear-and-tear, with no black-market or other intentional skulduggery indicated, absolution would be given promptly. The date for filing was on or after November 1. From the screaming that had been done, the boards expected an avalanche. But the forms were not filled-out and filed, except by relatively few. Only 13% of the fueloil distributors reporting this month filed or intend to file the form. A third of those who filed have been brought back into balance by their boards; two-thirds have not but expect to be bailed out by the OPA district offices. Aggregate stock and coupon losses of those who filed forms ranged from .9% to 3.5%, averaging 1.8% of total sales. Interestingly, the distributor with the 3.5% loss is one of the country's most competent, of unquestioned integrity, with advanced automatic delivery operation. The fact that he filed the form indicated valid explanation of the loss—he must have had some barges sunk.

Of the 87% reporting who did not file the bail-out form, four-fifths of them say their losses were too small to bother about, with the remainder divided about equally between those who are skeptical of OPA's honorable intentions and those who had already been bailed out by local boards before the legal procedure was set up.

As a practical matter it is impossible to sell fueloil under rationing without some losses, of either stock or coupons, so every distributor who played the game the right way cannot fail to be out of balance. The answer to why they didn't file probably lies in the cushion they got in the form of inventory coupons when they registered at the start of rationing; they were given these to represent the difference between their total storage capacity and their oil on hand when they registered. In a wide December survey, distributors disclosed their storage capacity and the number of inventory coupons they had received, as well as their annual sales gallonage. The returns show:

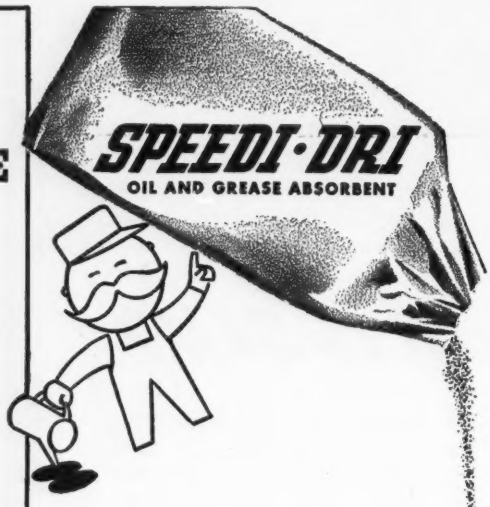
| | *New England* | *Middle Atlantic* | *Mid-West* |
|---|---|---|---|
| Inventory coupons, per-cent of storage capacity | 53 | 52 | 56 |
| percent of annual sales | 4.3 | 4.8 | 6.0 |

Thus it is obvious that a distributor could have lost in coupons and oil as much as 3 or 4% of his gallonage sold without seriously hurting his ability to get product, and under those conditions most prefer to avoid the lengthy explanations necessary to be put back in balance.

◈

J. A. WALSH & CO., Inc., is the new name of the former Air Conditioning Co., Houston, Tex. Mr. Walsh, president, says the name has been changed as new lines have been added, though personnel and policies remain unchanged. The company now handles General Electric air conditioning, heating and refrigeration, Frick refrigeration, Chealsea blowers, Hunter attic fans, and J-M insulation, among others.


**QUICKLY ABSORBS OIL & GREASE**
from
**FLOORS**
**PAVEMENTS**
**DRIVEWAYS**
•
*Use it around*
**HIGH-BOYS**
*and*
**FILL-PIPES**




How would you like to put an end to customers' complaints about spilled oil and grease? How would you like to cut down slipping accidents and retard fires? How would you like to save back-breaking, time-consuming labor now wasted in cleaning up?

SPEEDI-DRI will do all this for you—and more! It's a white, granular substance that soaks up oil and grease like a blotter. It's easy to use. It's safe, clean, economical, unrationed. Write for details and FREE SAMPLE.

**SUPPLIERS**

East
REFINERS LUBRICATING CO.
New York 1, N. Y.

Midwest and South
WAVERLY PETROLEUM PRODUCTS CO.
Philadelphia 6, Pa.

West Coast
WAVERLY PETROLEUM PRODUCTS CO.
Russ Building, San Francisco 4, Calif.

*Prompt Service from Warehouse Stocks in Leading Cities*

**MORRISON STEEL PRODUCTS, manufacturers of the famous MOR-MAC FURNACES (before converting to war work) are spending that "25th HOUR" of the day completing preparations for the *New and Revolutionary Line* of MOR-SUN *Pressed Steel* FURNACES . . . for all fuels.**

MORRISON STEEL PRODUCTS, INC. MORRISON STEEL PRODUCTS BUFFALO 7, N. Y.

**WATCH FOR THIS SYMBOL** MOR-SUN PRESSED STEEL FURNACES **"The Sun Never Sets with MOR-SUN!"**

Fuel oil & oil heat

## Manpower Appeal Methods Announced by PAW—WMC

IN EARLY DECEMBER both the Petroleum Administration for War and the War Manpower Commission established procedures under which groups of companies within a community can make application to get their key personnel classified as "locally needed" which provides draft deferment for a time or making available other suitable men.

The PAW outline is intended for men engaged in petroleum handling, while WMC covers trades and services generally, which would include oilburner service men. PAW suggests taking these steps:

1. A group of firms in any one area (town, city, county, etc.) should write individually to the PAW District Director of Marketing, to request the declaration, giving at the same time a full presentation of the facts concerning their manpower emergency.

2. Upon receipt of a representative number of these requests, the District Director of Marketing will then request the district Manpower Sub-Committee to institute a survey of all marketers in that area to determine whether the manpower situation warrants a recommendation to WMC. Simple forms, summarizing types and amount of business, and employee classifications, must then be filled out by all marketers in that area.

3. Upon receipt of the results of this survey the District Director of Marketing may then recommend to the Area Director of the War Manpower Commission that petroleum distribution in that area be declared "locally needed." The WMC acts upon this recommendation.

The War Manpower Commission's release explains its methods of cooperating with the Office of Civilian Requirements in WPB in determining the necessity for "locally needed" classifications. The procedure is outlined:

1. The OCR will make findings of fact with respect to the production of essential civilian goods and locally needed Services. It will make recommendations accordingly to the Area Manpower Priorities Committees through the WPB representatives on these Committees; and where such committees have not yet been established, will make its recommendations directly to the area or State WMC offices.

2. The OCR representatives in each area shall act as consultants to the War Manpower Commission State or Area Director on the products and services within the jurisdiction of the OCR.

3. State and area directors will consult the appropriate OCR representatives before submitting to a Manpower Priorities Committee any recommendations with respect to industries, trades, or services within the jurisdiction of the OCR.

4. Regional, State, and Area Directors will consult the OCR representatives on all determinations of "locally needed" trades and services. State or Area Manpower Directors will receive recommendations from the representatives of the OCR concerning the designation of any trade, service, or industry as "locally needed."

5. The Regional WMC offices and the OCR resident representatives will collaborate in determining standards for the designation of trades and services as "locally needed" when such standards are needed. If standards have already been jointly established by the respective Washington offices, the OCR resident

Fuelfoil oil heat
Excerpts from December 1943
Editorial leaks
. . . It is certain that we may look for a poorer grade of burning oils before the end of this heating season. They will contain as much heat as ever, and probably will not be appreciably heavier, but they are likely to be harder to ignite and burn.
. . . Manpower shortages at present may make it extremely difficult to make the required adjustments and to do the additional cleaning that may become necessary . . .
. . . Civilian gasoline, kerosene and distillate heating oils from these plants are sure to suffer in quality . . .
Here's the Answer
TO PRESENT DAY
OIL BURNING
PROBLEMS
Reduce Service Calls
Satisfy
Your Customers
Liquid
KLEEN-FLO
FUEL OIL
CONDITIONER
Improves Oil Burner Efficiency by insuring
QUICKER STARTING • CLEANER FIRING
FASTER HEATING
PRODUCES MORE HEAT PER FUEL-OIL GALLON
Saves up to 20% in Fuel Oil Bills
COMBUSTION UTILITIES CORP. NEW YORK N.Y.
KLEEN-FLO
FUEL OIL CONDITIONER

KLEEN-FLO Fuel Oil Conditioner is a liquid chemical for all oil heating systems. Increases heating capacity, insures easier starting, reduces carbon and soot formation, and conserves fuel oil. Kleen-Flo improves combustion by exerting a strong catalytic effect on oil fire. Eliminates "puff-backs", odor, and smoky chimneys. Contains no acids or ingredients harmful to the oil burner system or refractory brick-work. Works with equal efficiency on all grades of fuel oil. Kleen-Flo is added to tank through oil fill line. Now available in quart and gallon cans. One quart conditions 500 gallons of fuel oil. Tested, approved and used by many U. S. Government departments. For profitable, repeat business, feature KLEEN-FLO.

***Distributed by Leading Supply Jobbers***

**COMBUSTION UTILITIES CORP.**

**1451 BROADWAY** **NEW YORK 18, N. Y.**

*Makers of KLEEN-FLO MOTOR CONDITIONER — For Stepped Up Power and Smoother Operation*

# ...In the post-war period

# benefit by selling...

# MUELLER'S *complete line*

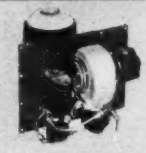
## *nationally known...nationally advertised*

SOONER or later, the curtailment of war production will release materials for civilian use, and there will be a great demand for many types of heating equipment. It pays to be a dealer representing a reliable manufacturer who can help you meet any or all of these requirements — and who can give you, from a line that is really complete, exactly the right furnace for any job.

Mueller is — and has been for many years — one of the outstanding companies which can provide you with a complete line of equipment — furnaces for homes of any size, type or price range . . . also for commercial installations. Mueller gives you not only a complete line of equipment specifically designed for oil, but also an equally complete line of gas-and coal-burning equipment.

Mueller dealers benefit by selling a complete line — nationally known and nationally advertised. Contact your nearest Mueller distributor or write: *L. J. Mueller Furnace Co., 2009 W. Oklahoma Ave., Milwaukee 7, Wis.*

F-5

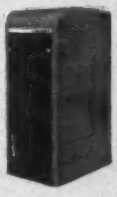


*Mueller Vaporizing Oil Burner* — Air for combustion supplied by motor driven centrifugal type blower. Safety float control — ni-resist metal retort.

*Mueller Series 50 Oil-fired Winter Air Conditioner* — Three sizes. Small size equipped with either vaporizing or pressure atomizing burner. Larger sizes with pressure burner only.

*Mueller Pressure Atomizing Oil Burner* — (patented). "Spinning" flame burns every drop of oil — produces complete combustion.

*Mueller Series OVP Vertical Type Oil-fired Winter Air Conditioner* — Equipped with Mueller Vaporizing Oil Burner. Burner and controls enclosed.



*Mueller Series OHP Horizontal Type Oil-fired Winter Air Conditioner* — Equipped with Mueller Vaporizing Oil Burner. Burner and controls exposed.

# MUELLER *Milwaukee*

## HEATING AND WINTER AIR CONDITIONING

fuel oil & oil heat

# It's Time to Start Planning for Postwar PROFITS!

Postwar planning committees in the Heating Industry advise us that many new postwar homes will be adequately heated with two quarts of oil per hour or less, that the majority will be heated with less than three quarts per hour — and that their owners will demand automatic oil heat.

As you know, this demand cannot be met by pressure type oil-burning equipment, which is not satisfactory in these small capacities.

However, H. C. Little dealers will be sitting pretty in the postwar market, because they will be selling H. C. Little's exclusive, patented, fully automatic, vaporizing-type oil-burning equipment, which ideally meets these conditions.

In fact, the H. C. Little Burner Co. is the only heating equipment manufacturer in America who can meet this demand with factory assembled units which combine fully automatic operation, electric ignition, thermostatic control and vaporizing burners. These units include floor furnaces, wall furnaces, circulating heaters and hot water heaters — a complete range of sizes and types of automatic oil heat especially designed for small homes.

If you're interested, let's go after that postwar market together.

***WRITE FOR FREE BOOKLET***

**H. C. LITTLE BURNER CO.**

*Send for a copy of "How to Get Real Profits in Postwar Heating." You'll find it interesting.*

**San Rafael, Calif.** *(Branches in Principal Cities)*


representative will collaborate in adapting them to meet local conditions.

6. The WMC, in cooperation with OCR and other appropriate agencies, will develop programs, and issue specific instructions to USES and other approved referral agencies, for securing needed workers in essential civilian industries and services and for maintaining designated employment levels.

7. The WMC and the OCR will cooperate, consistent with their respective policies, in action on cases to be presented to WLB, OPA, ODT or other appropriate agencies.

## Furnace Price Changes, Down and Up, by O.P.A.

THE OFFICE OF PRICE ADMINISTRATION recently announced a schedule of reductions in maximum prices of warm air furnaces from which certain parts have been omitted by manufacturers in accordance with recent WPB limitation orders.

The cost of the specified parts omitted will be deducted from the manufacturers' price, and for reasons of simplicity and uniformity the same deductions will be made in wholesale and retail prices. The parts specified and the amount to be deducted when omitted from the furnace are:

| | Cents |
|---|---|
| Feed door smoke screen | 10 |
| Feed door lining | 20 |
| Hot blast lift door | 5 |
| Wire coil handle | 10 |
| Water pan | 50 |
| Inner lining for casing | 60 |
| Upright shaker handle | 55 |
| Poker | 15 |
| Metal check damper | 20 |
| Hand-control draft regulator | 40 |

OPA also announced that the recent nine percent increase authorized in manufacturers' sales of steel and cast iron furnaces applies only to the furnace proper and not to any auxiliary equipment.

The manufacturer may increase his lowest list price on a complete furnace oilburner unit, a stoker-furnace unit or a gas-furnace unit only on the selling price of the furnace itself (including casing and grates) even though his price sheet lists ceiling prices on the complete unit.

For example: A manufacturer lists a furnace oil-burner unit including an oil burner, blower, filter and controls (auxiliaries) for $400. The furnace itself lists for $100. The manufacturers' selling price for the unit may be increased by $9.00

which is 9 percent of the list price of the furnace itself), establishing a new ceiling price of $409 for the complete unit. He may *not* increase his price by adding 9 percent of the list price for the entire unit (9 percent of $400 or $36) to establish a ceiling price of $436.

Selling prices for *others* than manufacturers of the furnaces and units shall be sellers' ceiling prices at the time of the effective date of the action pertaining to the particular type of furnace or unit, plus the actual dollar increase in cost to them of the furnace itself.

◈

## New England Oil Men Meet At Boston

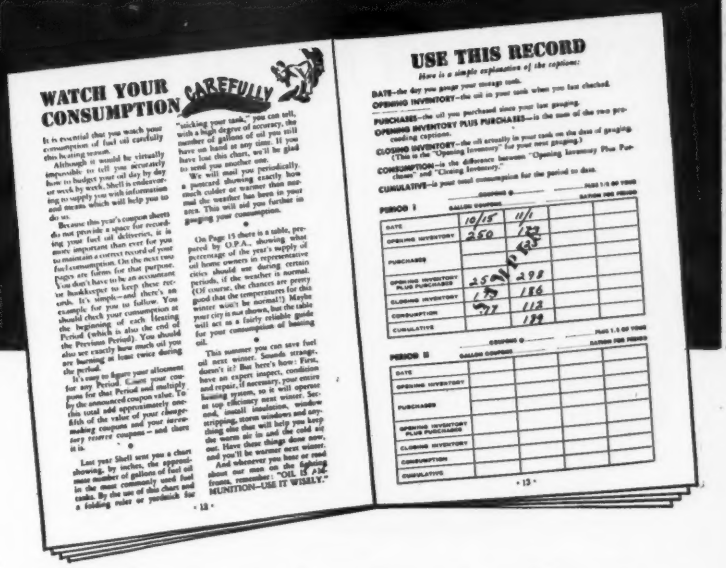
THE INDEPENDENT OIL MEN'S Association of New England held a Special Fall War Conference at Boston's Copley Plaza Hotel December 16 with about 500 oil men attending. The principal speakers were William R. Boyd, Jr., chairman of the Petroleum Industry War Council, H. W. Dodge, director of PAW District 1, and William Sheperdson, chief of the Small Business Organization Div., U. S. Dept. of Commerce. In charge of the meeting were John W. Scott, president of the association, and Clyde G. Morrill, executive director.

Boyd and Dodge spoke extemporaneously, bringing the members up to date on activities of their respective organizations, emphasizing particularly the expanding war needs for petroleum and the impending crude shortage, promising little in the way of improved supply for civilian consumption until war needs relax. Sheperdson read a prepared paper, of high interest, pointing up the shift away from small- and toward larger business units during the past 30 years. The paper, containing numerous statistical data, will be reviewed in a later issue.

At noon of the same day Harold Ickes, PAW chief, spoke before the Boston Chamber of Commerce in the same banquet hall, with his speech broadcast over the principal New England networks. His talk was somewhat disturbing to some of the visiting oil men, because of the strong note of optimism on heating oil supply outlook. Most of his talk dealt with coal scarcity and sharply warned New Englanders that there will not be enough this winter to give everyone all he wants. Then


NOW DOUBLY IMPORTANT

to all Fuel Oil Users




The Consumption-Gauging Tips in SHELL'S 1943-44 FUEL OIL BOOKLET

IN the middle of the heating season, customers' questions are arising thicker and faster than ever. It becomes absolutely essential to have the latest fuel-oil rationing facts at your finger tips. And remember—this year's coupon sheets don't provide a space for recording fuel oil deliveries. So you particularly want to be able to pass on ways of maintaining a simplified and accurate consumption-record.

You get all this valuable information—*free*—in Shell's popular Fuel Oil Ration booklet. Send for yours *without delay.* Arrangements can be made for large quantities.

Write: Fuel Oil Department, Shell Oil Company, Inc., 50 West 50th St., New York 20, N. Y.

SHELL

SHELL FUEL OIL

Burner Testing Laboratories

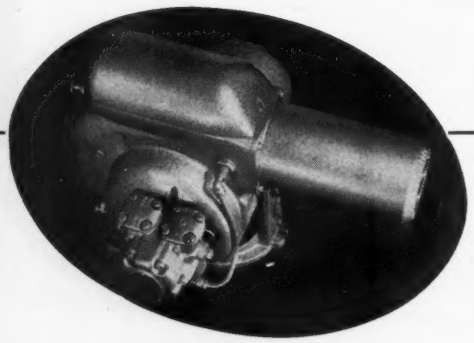
he discussed fueloil and remarked that he was happy to disclose that the oil outlook is much better, following this with a recital of the things done to improve transportation, etc., and if the speech had been made principally to oil men it would have been clearly understood.

But the general public, to whom it was addressed, would only get the impression that oil supplies are greatly improved and are substantially better than coal supplies. Many New England oil men had been complaining that their customers this season are using their rations much too freely, thinking they are going to get more oil later, all a result of too much optimistic publicity. After hearing Ickes, they visualized thousands of consumers walking over and turning up their thermostats another couple of notches.

The simple fact is that fueloil is much more scarce than coal. True, it may be easier to meet the rationed demand for fueloil than the unrationed demand for coal, but that is not what the public is being told. Statistics on coal supply indicate a shortage from normal consumption of not more than 10 or 12 percent, while fueloil for heating is cut at least 25 percent. On the average, the oil heated home must be at least three or four degrees colder this season than the coal heated home. The public has not been told this, with the result that oil is being used too freely, and all as a result of too much Pollyana publicity.


PASSWORD TO THE POST-WAR MARKET

...*"Heating by Herco"*



BECAUSE the Herco Residential oil burner is giving exceptional performance under exacting wartime conditions, future buyers will want "Heating by Herco" . . . with its well-known advantages of oil economy, dependable operation, minimum servicing. And Herco will have these post-war products ready for you to sell.

Although we are engaged almost entirely in war production at present, plans for post-war Hercos are well advanced . . . *perfected to the point where we can already offer dealers a franchise on post-war Hercos in their territories.*

This is a sound plan for post-war profits. Write us for information *today.*

HERCO OIL BURNER CORPORATION, LANCASTER, PENNSYLVANIA

*Service in Wartime Sales in Peacetime*

HERCO

*The Oil-Thrifty*

OIL BURNER


## Warm Air Group Holds Packed One-Day Session

OVER THREE HUNDRED warm air furnace and accessory manufacturers and jobbers attended the 30th annual convention of the National Warm Air Heating and Air Conditioning Ass'n. in Cincinnati December 8. The morning session, presided over by H. S. Sharp, outgoing president, included a welcome by Mayor James G. Stewart, and addresses, "Problems Concerning a Regional War Labor Board" by W. L. Seelbach, "Post-War Residential Prospects" by T. S. Holden, and "The Heating Industry Post-War" by Paul Zimmerman, president of the Indoor Climate Institute.

A luncheon, with W. L. McGrath of Williamson Furnace Co. presiding, was addressed by F. V. Spier, president of the Cincinnati Milling Machine Co., with specific suggestions for postwar planning methods.

The afternoon meeting was conducted by H. P. Mueller of the Mueller Furnace Co., Milwaukee, newly elected president of the ass'n. The program included a highly interesting talk by H. F. Randolph, vice-pres. of International Heater Co., Utica, on "Radiant Heating with Warm Air." Other talks included "Proposed Short Design Method for Forced Air Heating" by S. Konzo, Univ. of Illinois, "Industry Problems" by Morgan N. Johnston of W.P.B. and "Civilians' Problems" by Chas. S. Saunders of O.C.R.

AMENDMENT 90 to the fueloil rationing regulations, effective November 30, provides for issuance of fueloil rations to late applicants. Tables show the percentage of the total ration that is permitted at various dates.

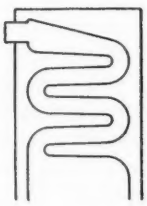
AMENDMENT 91 to RO 11, effective December 24, allows the use of residual fueloils for coal spraying.

# *When the Heat of Battle Is Over And the Sailor is Home from the Sea*

***Penn Boiler will turn its hands toward another kind of heat—the kind that makes our homes warm and our hearts glad.***

***We are not unmindful of those days for which everyone is planning. Today, while we are making the weapons of war, we are planning too, for the time when we will again produce better Penn factory-assembled all-in-one heating units which will bring new comfort to thousands of homes.***

***Today, we are 100% in the War Effort; tomorrow we will be 100% in the Home Effort—When the Heat of Battle Is Over!***



***Penn Units Are All-In-One:***

Boiler, burner, combustion chamber, circulator and domestic hot water supply. Because Penn units are factory-assembled and factory-coordinated, you can expect complete satisfaction.

**PENN BOILER & BURNER MFG. CORP.**

E. C. STAUFFER, PRESIDENT

**LANCASTER, PENNA.**

fueloil & oil heat

# BLUEPRINTS FOR YOUR HOUSE *of* TOMORROW

## YOU MAY HAVE FIREPROOF FURNITURE!

Chemical fireproofing of upholstery fabrics will be a definite safety habit in your post-war home.

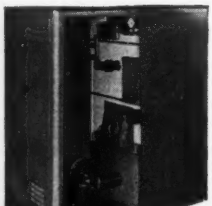
**BUT –**

## *Your Heating Plant will be* KOVEN WATERFILM

For perfection in heating and economy of operation, KOVEN WATERFILM BOILER is the choice of leading architects and builders. Its modern design and patented construction provide you with quick, sustained, even room temperature, and a plentiful supply of domestic hot water.

KOVEN WATERFILM, the fastest steaming boiler on the market, is manufactured in a variety of models for the small or large home, apartment house, or factory building.

KOVEN WATERFILM BOILER, made especially for automatic firing with oil, stoker, or gas, offers you the latest in scientific heating comfort. It is designed to give you the most for your heating dollar, today—or in your home of tomorrow.



KOVEN WATERFILM BOILER-BURNER UNIT

**WATERFILM BOILERS, Inc.**

154 OGDEN AVENUE JERSEY CITY, N. J.

PLANTS: JERSEY CITY, N. J. • DOVER, N. J.


# *Readers' Forum*

MODERN PLUMBING & HEATING CO.
Duluth, Minn.

*Editor:*

We have noticed from time to time that you give publicity to manufacturers, etc., who have received the Army-Navy "E." We are writing to you to tell you about ourselves, an oil burner dealer who has received both the Army-Navy "E" and the first star.

In 1921 we secured the franchise for selling Kleen-Heet oil burning equipment in this territory and to date still hold this franchise. Since July, 1941, we have been doing work for the Zenith Dredge Company as sub-contractor, doing all their piping on the contracts that they have held for building U. S. Coast Guard Cutters, and U. S. Navy Tankers. This summer we were awarded the Army-Navy "E" flag and on December 15, 1943, received the star. I have never been able to find out how many plumbing and heating contractors have been awarded the Army-Navy "E" flag nor how many have ever received the star in connection with it, but do feel that we ought to do a little bit of bragging to the public about the fact that not only oil burner manufacturers can or have received this honor.

Incidentally, we are still in the oil burner business and are doing our best to maintain our contacts of years' standing. Of interest to other oil burner dealers, we are still installing new oil burners aboard ships.

M. W. MEIERHOFF.

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CONCO CORPORATION
Mendota, Illinois

*Editor:*

On November 18th, 1943, the employees and management of the Conco Engineering Works were awarded the coveted Army-Navy "E" for high achievement in producing materials needed for War.

Our factory, formerly devoted to the manufacture of such peace time equipment as coal stokers, oil burners and oil burning furnaces, was completely converted over to the manufacture of war materials, even before the Japs attacked Pearl Harbor, and since this conversion, has operated on a 24 hour a day basis, seven days a week.

Recognizing not only the terrific demand for heating equipment in the days after the War but also the keen competition that is bound to develop, we are straining every resource of our research laboratories for the purpose of producing a very extensive line of heating equipment which will encompass modern thought both in performance and appearance.

Many new things will develop as time goes on but we feel that the vital issue confronting the producers when the bars are let down is to be ready to meet the demand, because we realize that there will be a crying need for all types of heating equipment that will render dependable performance, and that fruit of the streamlining and dreaming that is now taking place in all research laboratories will undoubtedly be delayed until the extreme need has been first taken care of.

R. C. GUSTAFSON.

◈

## Rationing Administration Undergoes Reorganization

WHEN COLONEL BRYAN HOUSTON came to OPA as deputy administrator in charge of rationing on November 1st his general policy disclosures led some in the various rationing divisions to expect organizational changes as soon as the Colonel had his feet under him.

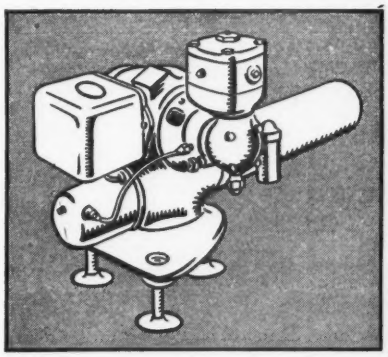
Their predictions proved right. On December 21 the officials in the rationing divisions were notified of revisions in lines of authority, embodied in a reorganization that is to have nine divisions instead of the present four.

Previously the four product divisions were set up on a vertical basis, each substantially complete in itself and relatively autonomous. The fuel division, for example, made its own decisions on all matters pertaining to its program, with rare exceptions when the subject affected general OPA policy. Within the division were branches, such as the fuel oil rationing branch, the stove rationing branch, the administrative branch. Branches were divided into sections to handle specific parts of the work, and the larger sections subdivided into units.

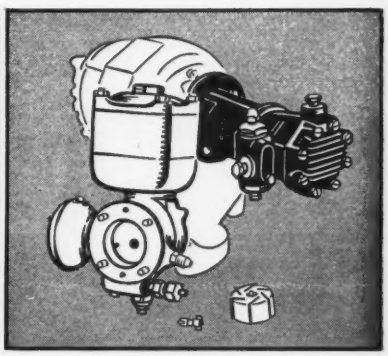
Within the fuel oil rationing branch, for example, was a program planning section, responsible for exploring and initiating changes in the program. Within


# MAKE MORE MONEY-- with FEWER SERVICE MEN

## CONVERT Low Pressure OIL-O-MATICS to Conventional HIGH PRESSURE with Sid Harvey's "Package No. 41"



All models of Oil-O-Matic can be converted to high pressure (Illustration shows Model K 150)



Same burner converted to high pressure with Standard Fuel Unit (Webster or Sundstrand). Shows old assembly removed.

Make low pressure Oil-O-Matics and low pressure Hercules (Sears Roebuck) Model M easy to service and maintain by replacing the fuel assembly with standard Webster or Sundstrand fuel units. The low pressure nozzle assembly is easily changed to take standard nozzles. With these simple changes you eliminate need for specialized service and hard-to-get parts. There is no problem now that ANY service organization can not take care of promptly, and at reduced cost.

### NOTHING ELSE TO BUY

Sid Harvey's Package No. 41 consists of either Webster T or Sundstrand S-1 Fuel Unit, mounting bracket, drive coupling, nozzle adaptor, nozzle, nozzle strainer and all necessary piping connections. Specify model wanted and size and angle of nozzle required.

**DEALER NET PRICE WITH WEBSTER UNIT $23.50**

**DEALER NET PRICE WITH SUNDSTRAND $22.00**

### ADVANCE REPLACEMENTS

**Package No. 41 is available for advance replacement for Models K 1.5, K 150, K 3, WHA, WHB, WHC and "WHC Boiler-Burner Unit." Specify model wanted.**
**Package No. 41A is available for advance replacements for Models KB, K 4.5, K 7 and Hercules Model M. Specify model wanted.**

**SID HARVEY INC.**
**VALLEY STREAM, NEW YORK**

**Sid Harvey's now has in stock genuine Oil-O-Matic Service Parts for low pressure burners.**

the section was a unit on fueloil uses and eligibility, a supply-and-demand unit, a statistical unit, a special assignments unit.

Other sections included legal, which wrote the regulations embodying the proposed changes, a forms and procedures section, which developed forms and worked out board instructions to effectuate the new regulations, an industry relations section to work with the fueloil industry in various needed ways, a control and audit section, which analyzed primary suppliers' monthly returns and generally kept track of compliance, a field liaison section, which coordinated the work of the national office with the fueloil rationing field men at the district and regional offices, and a correspondence section to handle mail from the general public.

The other rationing divisions, Automotive (gasoline), Food, and Miscellaneous Products (shoes, typewriters, etc.) each had similar organizations.

Under the newly announced revision, the four product divisions are to remain as they are, but superimposed on top of the four will be five "staff" divisions which will supervise the functions of the various operating sections within the product divisions. The new divisions will be called "Program," "Statistics," "Administrative," "Field" and "Legal." The new program division, for example, will supervise and coordinate the work of the program planning sections now set up for each of the 13 rationed commodities. The other staff divisions will similarly dip into the work of the functional sections within the product divisions.

The apparent purpose of the new staff divisions is to more closely harmonize all of the rationing programs, to work the good features of one into others, to try and make things easier for field staffs and local boards, to assist enforcement and to prevent duplication of effort within the product divisions. Those are worthy objectives, if they are not attained at the expense of weakened morale, slower operation and the difficulties that may arise through having generalists instead of experienced specialists in top authority.

Courtesy: Bell Aircraft Corp.

Rexoil IS PARTICIPATING

Rexoil Burner experience, skill, manpower and management are devoted whole-heartedly to the war effort today . . . but TOMORROW, - when restrictions are relaxed, the finest Rexoil Burners, Furnaces and Boilers ever made will be available to alert dealers. Have we your name? Reif-Rexoil, Inc., 37-41 Carroll St., Buffalo, N. Y.

Courtesy: Sterling Engine Co.

100%

## Manufacturers Can Now Get Control Materials

THE WAR PRODUCTION BOARD announced December 5 that a special allotment of controlled materials has been provided for the manufacture of certain heating system controls for the purpose of conserving fuels. This should clear up a situation that has caused industry headaches in the past few months.

In early Fall WPB's L-79 was amended and one of the provisions was the exclusion from priority requirements on dealer purchases of controls. Dealers and supply houses placed orders, but manufacturers had few controls to ship because critical materials had not been given them under CMP to make them up. Now such materials are available for the first quarter of 1944.

Materials were provided for the manufacturers of the following equipment:

DOMESTIC TEMPERATURE CONTROLS

200,000 Barometric Dampers for Space Heaters.

400,000 Barometric Dampers for Central Heating Plants.

COMMERCIAL TEMPERATURE CONTROLS

5,000 Control sets composed of outside-inside Thermostats, Motors, Link-

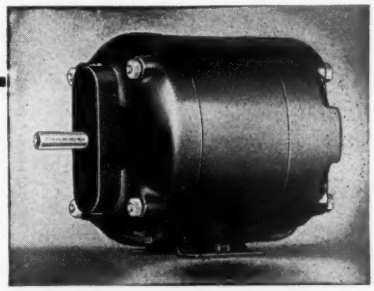
# Six TIMES THE POWER

Multiply the ordinary solenoid valve by six and you get an idea of the powerful lever action developed by General Controls' K-10. This quiet, two-wire, current failure valve is easy to install on air-conditioning combustion or refrigeration equipment. K-10 handles air, gas, water, light and heavy oils, and steam. Positive opening and complete shut-off are assured. Designed for either normally closed or open. Available any voltage. A.C. or D.C. and up to 1¼" I.P.S., port sizes up to ⅜". For specifications write for Catalog

**GENERAL CONTROLS**

801 ALLEN AVENUE — GLENDALE 1, CALIF.

*Branches:* Boston • New York • Philadelphia • Cleveland • Detroit • Chicago • Dallas • Denver • San Francisco



# A SMALL MOTOR

## *for General Purpose Applications*

**Types**—Split Phase, Capacitor or Shaded Pole.
**Speeds**—1100, 1700, 3400 RPM.
**Power**—1/80 to 1/20 HP, depending on speed.
**Voltages**—Up to 220 A.C.
**Frequencies**—60, 50 and 25 cycles.
**Bases**—Solid, resilient or flange.
**Mountings**—Horizontal, Sidewall, Ceiling or Vertical, with shaft up or down.
**Efficiency**—High for such small powers.

*What is your problem?*

**THE OHIO ELECTRIC MFG. CO.**

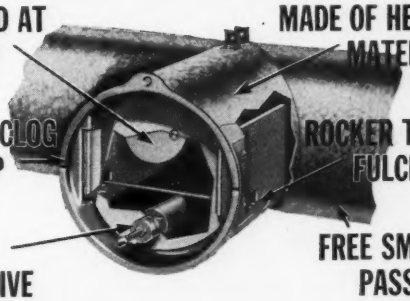
*5913 Maurice Ave., Cleveland, Ohio*

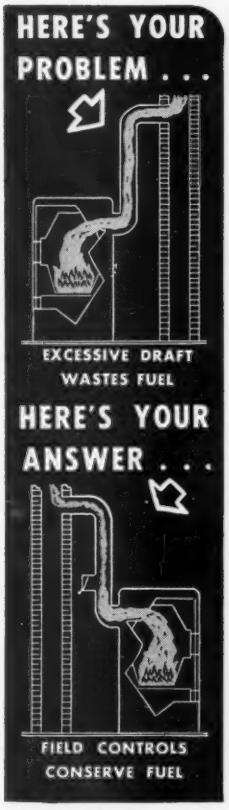
OHIO reliable MOTORS

**OHIO MOTORS**

# FOR 5% TO 25% FUEL SAVINGS Field

**BAROMETRIC DRAFT CONTROL**




★ The delicately balanced, but strongly built Field Barometric Draft Control compensates immediately for the slightest change in barometric pressure. Through all types of weather, it maintains the minimum draft necessary for proper combustion.

★ A Field Control provides fuel savings ranging up to 25%. There is a model adapted to any type or size of heating installation . . . coal or oil. The domestic controls can be installed in as little as thirty minutes; installation requires only a tin snips, a carpenter's spirit level, a little "know-how."

★ Write today for full, free facts. The profit margin on a Field installation is definitely worth while. They require no servicing. The market in your community is almost unlimited, as nine out of ten installations need a money-saving, fuel-saving Field Barometric Draft Control.

**FIELD CONTROL DIVISION**

**H. D. Conkey & Co.**
**Mendota, Illinois**

fueloil & oil heat

ages, Valves, Relays, Transformers.

15,000 Control sets composed of Thermostats (Inside), Motors, Linkages, Valves, Relays, Transformers.

15,000 Barometric Dampers.

The WPB's Plumbing and Heating Division will allocate the supplemental, controlled materials to all manufacturers who are able to produce the specified type of heating system controls.

In allocation, the prime considerations will be as follows:

1. Manufacturers in Labor Areas Number 3 and 4 will be favored in alloting material over manufacturers in Labor Areas Number 1 and 2.

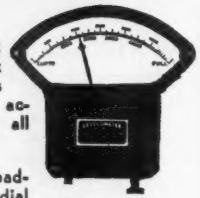
2. Manufacturers requesting controlled materials to produce equipment for the Fuel Conservation Drive must show that such production will not affect their active production and shipment of direct war contract equipment.

3. Material will not be allocated to a manufacturer who cannot show that he can reasonably expect to produce the total quantity of equipment he requests material for, in time for distribution, and installation during the 1943-1944 heating season.


WITH OIL CONSERVATION MORE VITAL THAN EVER, Its Accurate Check-Up Is Important— INSTALL

LEVELOMETER TANK GAUGES

"They're Dependable"



A LEVELOMETER gauge on an oil tank installation eliminates guesswork—it insures accurate readings at all times.

Large Model LEVELOMETER 12" x 12" case

Convenient, remote reading:—LEVELOMETER dial may be located at any reasonable point from tank and—large graduations and numerals make it easy to read.

Midget LEVELOMETER Lowest priced Remote Reading Gauge Built

LEVELOMETER tank gauges, approved by Underwriters' Laboratories, operate on an exclusive adaptation of the hydrostatic principle. No liquid is used in indicator to be affected by temperature changes, to evaporate, stain glass or to be blown out due to excessive pumping.

Small Model LEVELOMETER 6" x 6" case

Get complete details regarding LEVELOMETER tank gauges—the Remote Reading gauges that insure accurate — trouble free check-up.

THE LIQUIDOMETER CORP.
36-19 SKILLMAN AVE., LONG ISLAND CITY, N.Y.


## More "E" Awards To Industry Firms

FIVE new Army-Navy "E" flags have been added to the numbers formerly flying over the industry's manufacturing plants.

Employees of the Conco Division of H. D. Conkey & Co., Mendota, Ill., were presented with the award November 18. The company formerly made a complete line of automatic heating equipment for all fuels, and now is producing hoists, draft controls, and Blitz cans.

## Harry Evans

Harry Evans, president of Kleen Heet Sales Co., Brooklyn, N. Y., died on December 24 after a long illness. Mr. Evans was well known for his prominence as an oil and oilburner distributor, having been among the first oilburner dealers in the city.

Mr. Evans was president of the New York Oil Heating Association in 1943, and chairman of the New York Harbor Committee which works with OPA in fueloil rationing. He was a member of the Fueloil Distributors' Panel which advises OPA at Washington on distribution problems, and a trustee of the Oil Heating Association of Brooklyn and Queens. He was an active member of the Old Timers Club.

Members of the New York Oil Heating Association held a private service shortly before the funeral on December 26.

## Joseph T. Ellis

Joseph T. Ellis, former manager of the Steel Boiler and Oil Heating Division of the National Radiator Co., Johnstown, Pa., died at his home, November 19. He had been recuperating from a severe illness.

Mr. Ellis has been with the company for 30 years, starting in the Baltimore office, becoming a salesman, and being promoted to manager of the Steel Boiler Division in 1933. The Oil Heating Unit Division was combined with steel boiler sales in 1939. Mr. Ellis was acting as manager of the Newark, N. J., branch when taken ill.

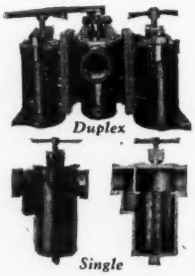

Proven by PERFORMANCE—

KRAISSL

Filters • Strainers • Pumps for FUEL OIL

Intelligent engineering is only the starting point. Consistent on-the-job performance over many years provides practical endorsement of KRAISSL design and manufacture.

Class 72 Strainers and Filters



Duplex

Single

Single and Duplex types for suction or discharge service—any practical degree of filtration in units designed for low pressures as well as up to 500 lbs. hydrostatic test—easily removable filter basket insures quick cleaning.

Class 60 Heavy Oil Pumps

Standard equipment wherever independent pump and motor sets or booster pumps for pump-type burners are required.

Kraissl-Trumbull No. 522 Fuel Pump Unit

Rugged, dependable wall pump for gravity type oil burners having burning capacity of not more than 3 gals. per hour—Approved by Underwriters' Labs., Inc.

Submit your fuel-line problems to KRAISSL engineers—literature and prices on request.

THE KRAISSL COMPANY INCORPORATED

295 Williams Ave., Hackensack, N. J.

GULF

# GULF OIL CORPORATION

*Quality Fuel, Diesel, and Heating Oils for a Nation on the Road to Victory*

NORTHEASTERN DIVISION SALES OFFICES

| Park Square Building | Whitehall Building | 1515 Locust Street |
|---|---|---|
| Boston, Mass. | New York City, N. Y. | Philadelphia, Pa. |
| *Hancock 3700* | *Bowling Green 9-5400* | *Pennypacker 4240* |

# KORTH

**6/10 Gal. per hr. Gun Type Domestic Oil Burner**

★ To manufacturers of boilers, winter air conditioning units and domestic hot water heating units: here is the key to a vast growing market created by small home construction where low firing rate is necessary. The new Silent Korth 6/10's gal. per hr. Model HG oil burner is made exclusively for Manufacturers for use with their own units and can be furnished with your own brand name.

**OUTSTANDING ADVANTAGES**

★ Takes up less space. 15″ long and high
★ The 6/10 gal. pr. hr. nozzle reduces fuel costs
★ Lower stack temperatures
★ Prevents overheating of furnace lining
★ All standard parts
★ Flange mounting
★ Capacity 50,000 to 120,000 B.T.U's
★ Ideal for all small compact units

**KORTH OIL BURNER CORP-ECKHART MFG. CO.**
Roselle Park, New Jersey

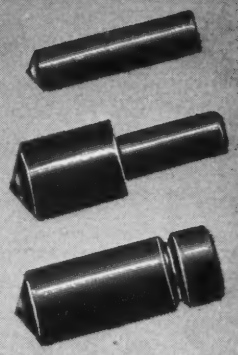
# Serving America's War Industries

BALLOFFET DIAMOND TOOLS

Balloffet's entire resources have been mobilized for the war effort, in the manufacture of Diamond Tools. And in the building of these, the skill of our master craftsmen is engaged in serving America's war industries which make the weapons that will lead to victory.

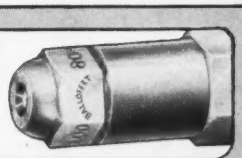
***Catalog upon request***

Precision Drillers since 1870



GRINDING WHEEL DRESSERS

**BALLOFFET NOZZLES**
Available on rated orders



**BALLOFFET DIES AND NOZZLE CO., INC.**
6825 ADAMS STREET GUTTENBERG N. J.

# CATSKILL STOKER

**CASH IN on the profit potentialities of this simple, dependable Anthracite Class "A" Stoker.**

**Sixty-five pounds an hour Model "C" available immediately on authorized PD 668 or 1612 Certificates.**

**Let us put you on our mailing list for bulletins on "Things to Come."**

York Corp., York, Pa., personnel were awarded the "E" for production of air conditioning and refrigeration equipment for war, the company's peacetime products.

Holtzer-Cabot Electric Co., Boston, received the award late in November. The company formerly supplied electric motors to the oilheating industry.

American Gas Machine Co., Albert Lea, Minn., former oilfired space heater manufacturer, was honored early in December, as well as Revere Copper & Brass, Inc., Rome, N. Y., manufacturers of tubing for burner manufacturers and dealers.

**Let's shake hands on it!**

**—after all, these days, you and we have the same problems:—to see that every oil burner owner gets the most heat out of the least oil.**

**That's why we're marketing SUNHEAT Furnace Oils especially for domestic oil burners —and that's also why we always recommend the local service man when our customers ask for help.**

**So this winter, let's be partners:—you do the servicing, we'll deliver the oil — SUNHEAT FURNACE OIL for HOT heat, for SURE heat.**

**Our nearest branch office is ready to cooperate. Phone, call, or write!**

SUNHEAT FURNACE OILS

SUN OIL CO., PHILADELPHIA


## Minnesota Booklet On Conservation of Fuel

WAYS AND MEANS of conserving all fuels used for heating, based on extensive experiments, are covered in Bulletin No. 20 of the University of Minnesota's Engineering Experiment Station, Minneapolis. The booklet reports the work of Frank B. Rowley, director of the station, Richard C. Jordan, and Clarence E. Lund, associate professors and assistant directors.

Starting with the nature and distribution of the heating load, the study covers the effect of heat and humidity on comfort, increasing the efficiency of the heating plant, fuel savings through lower indoor temperatures, reducing heat loss from the house, and problems arising from condensation of moisture in the house.

The section on heating plant efficiency goes into detail on effects of fuel input, flue gas analysis, draft regulators, fuel savers, insulation of heating plants and piping, cleaning boilers and radiators, and the firing of coal.

The booklet contains seventeen tables and twenty-two illustrations in its 60 pages of text.

## Minneapolis-Honeywell $10,000 Contest Winners

TRENDS OF POSTWAR APARTMENT design and construction were revealed when the Minneapolis-Honeywell Regulator Company announced the winners of its $10,000 heating design contest.

Based on plans for a six-story apartment building, prizes were awarded to 26 architects and heating engineers for designs of a system of steam heating and its control, and a system of hot water heating and its control, John E. Haines, manager of the company's space heating controls division said.

First prize for the system of steam heating was awarded to Clyde H. Baker, architect of Detroit, and first prize for the hot water heating system was won by Leonard Weger, Philadelphia architect. First prizes were $2,000 each.

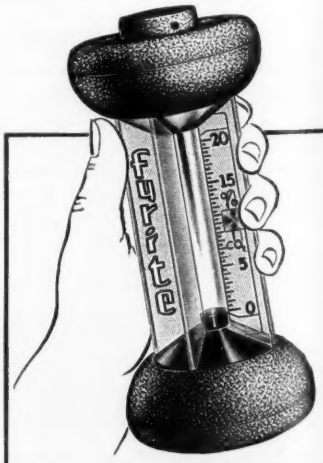
Second prizes of $1,000 went to Paul E. Nystrom, Madison, Wisconsin, for steam and to Walter T. Rolfe, Austin, Texas, for hot water. Third prizes of $500 were won by Abraham Walton, Jersey City, for steam, and John A. MacWilliam and Abraham D. Rubin, Perth Amboy, N. J. for hot water heating. In addition there were 20 honorable mention awards of $150 equally divided between steam and hot water heating systems.

"All contest entrants provided for personalized heat control," Haines said, "so that every occupant of postwar apartments will be able to determine and control the exact temperature he desires in his own living space."

More than 2,000 architects and heating engineers entered the contest, Haines continued, and of these 513 submitted plans in the competition. Entries were received from nearly every state in the union and the prize winners were located in all parts of the country, indicating, he said, that interest in postwar apartment building is not confined to large eastern and far west cities, but is nationwide.

Analysis of systems submitted in the competition indicates a very definite trend away from one-pipe steam systems the Minneapolis-Honeywell official stated.

BLACKMER PUMP CO., Grand Rapids, Mich., has opened a new Philadelphia office in the charge of B. Dunkley.


**The $CO_2$ ANALYZER**

***That Simplifies Combustion Tests***

Companion Draft Gauge and Mercury Thermometer also available.

**Bacharach Industrial Instrument Co.**

**7000 Bennett Street • Pittsburgh, Pa.**

# NEWARK CONTROLS

*After a long period of*

**100% War Work**

We are again able to offer
Consumer Goods
to the limit of our

**Bronze Supply.**

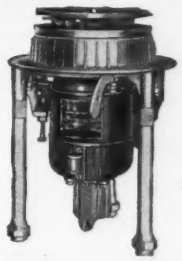
A FULL LINE OF LOW PRESSURE
WATER LEVEL CONTROLS.

Advantage of this situation should be taken on unprotected systems and for repairs.

**NEWARK BOILER REGULATOR CO.**

15 Ward St. Bloomfield, N. J.

# THE TORIDHEET LIBERTY LINE



## Important to you

In a world of uncertainties there's one thing you can positively count on—and that's the high efficiency of Toridheet Oil Burners • Air Conditioning Units • Oil Burner Boilers • Coal and Gas Furnaces • Water Heaters.

**CLEVELAND STEEL PRODUCTS CORP.**

***Toridheet Division*** ***Cleveland 2, Ohio***

# RAY KEEPS THINGS HUMMING . . . !

No reconversion problem here! Ray oil burners, oil-burning furnaces, water heaters or ranges are just as vital in war as in peace. That's why Ray has ample stocks not only for Reconstruction Day, but NOW—in the midst of the fight! This stock is available for approved orders.

## RAY OIL BURNER CO.

477 Bernal Avenue,
San Francisco, California

RAY
REG. U. S. PAT. OFF.

Atlantic Seaboard Division:
629 Grove Street,
Jersey City, N. J.

Grey Iron Production Castings
for All Purposes

*Complete Mechanized Foundry Equipment*

**WM. P. LAYTHAM & SONS CO., Inc.**

PATERSON, NEW JERSEY

*(Founded 1887)*

**HAYWARD OIL BURNERS**

**VERTICAL ROTARY BURNERS**
(capacity to 4800 feet E D R Steam)
and
**PRESSURE ATOMIZING TYPES**
(sizes from 1.00 gal. to 10 gal.)

In these days of fuel rationing, thousands of Hayward users are now, more than ever, fully convinced and appreciative of the economical operation made possible through Hayward construction.

Hayward manufacturing facilities are now entirely engaged in turning out war materials. Soon, we hope, in the post-war period we shall look forward to the resumption of pleasant, normal relations with our retail distributing organization.

**Limited numbers of most models are still available from stock for replacements or sales on priority orders.**

**HAYWARD MANUFACTURING COMPANY, INC.**
505 Court Street,
Brooklyn, 31, N. Y.

## Preferred Utilities Has Dealer Booklet

A NEW VEST-POCKET combination memo and reference booklet is being distributed to the oil-burning trade by Preferred Utilities Manufacturing Corporation, New York.

Half of the 190 pages are of quad ruled paper for notes and sketches. The other half contains data on various engineering subjects.

The engineering data include information on heating, steam power and the more commonly employed electrical formulae. Included also are a number of formulae, conversion factors and miscellaneous information such as engineers find useful.

## Copper Service Materials More Readily Available

COPPER and other controlled materials for repair and maintenance are made available under the new CMP Regulation No. 9A. Terms of the regulation were announced by the Office of Civilian Requirements.

Special provision is made in the regulation to permit service organizations to buy $150 worth of copper wire, or one-eighth of the dollar value of what they used in 1941, whichever is more. It also allows repairmen to buy as much other material as they need for maintenance and repair work.

The regulation specifically prohibits repairmen from fabricating repair parts that they intend to sell to others, rather than use themselves, with the materials they get under 9A.

To buy materials and parts under CMP 9A, a repairman must put a certification on his order in substantially the following form:

"CMP Allotment Symbol V-3: Preference Rating AA-3.

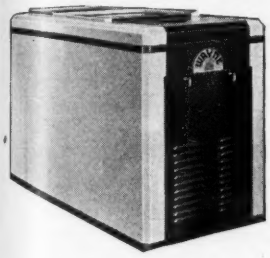
"The undersigned purchaser certifies, subject to the penalties of Section 35 (A) of the United States Criminal Code, to the seller and to the War Production Board, that, to the best of his knowledge and belief, the undersigned is authorized under applicable War Production Board regulations or orders to place this delivery order, to receive the items ordered for the purpose for which ordered, and to use any preference rating or allotment number or symbol which the undersigned has placed on this order."

*Richard W. Dixon* has been named sales manager for the Ray Oil Burner Co. after several years as assistant to Executive Vice President *Nelson Hayward*. *James C. Cook* of San Anselmo, Calif., has joined the executive sales staff after 15 years' experience with Ray dealers in Northern California. Mr. Hayward reports these changes forecast a vigorous sales policy for postwar.

*James C. Grant* has been assigned to the Texas territory as service representative for Chrysler Airtemp, according to *Ken L. Crapeau*, service manager. He has had long experience in refrigeration.

*Clarence A. Zwiesler* has been named traffic manager for Airtemp at Dayton, according to *A. R. Fors*, vice-president.

# WAYNE OIL-FIRED



## FURNACE UNITS

60,000 to 400,000 B.T.U.

## PROMPT SHIPMENT

on proper priority

The complete line of Wayne oil-burning furnaces and burners is again available.

**WAYNE OIL BURNER CO., 801 Glasgow Ave.**
**Fort Wayne 4, Indiana**

**WAYNE'S V-DAY LINE WILL BE COMPLETE**
OIL-FIRED, GAS-FIRED, COAL-FIRED FURNACES, STOKERS, BOILERS, WATER HEATERS. CONVERSION BURNERS FOR OIL AND GAS.

**LINE UP WITH WAYNE FOR POST WAR PROFITS**

INVESTIGATE THE

# Teesdale

BARA-MATIC

*Easy to install and meets Standard Safety Codes.*

**NEW** *In Design*
**EFFICIENT** *In Operation*
**CONTROLS** *Heat from*
OIL and GAS BURNERS, AUTOMATIC STOKERS, and PLANTS BURNING COAL and COKE. SAVES 10 to 30% HEAT LOSS.

*Investigate the Teesdale Bara-Matic*

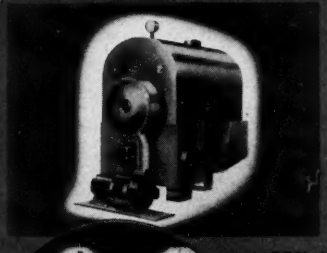
**TEESDALE MANUFACTURING CO.**
427 Market Avenue
GRAND RAPIDS 3, MICHIGAN

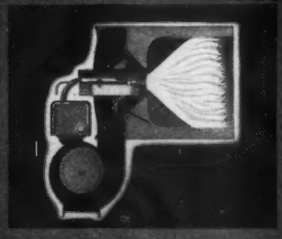
# DAMPER

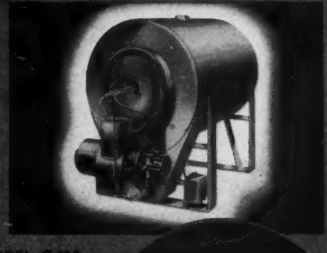
## MARINE BOILERS
HEATING TYPE
STEAM OR WATER
4 Models

GAR WOOD GW HEATING EQUIPMENT

## WATER HEATERS
MARINE AND
COMMERCIAL TYPE
3 Models





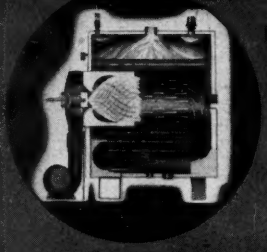


FIRING ASSEMBLY BURNER, WINDBOX AND COMBUSTION CHAMBER

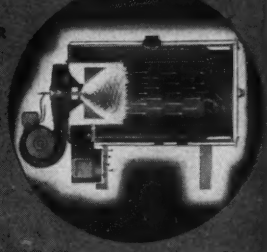
MODEL M1000 BOILER-BURNER UNIT

MODEL C 480 WATER-HEATER UNIT

*Literature on Request*



STEAM TYPE BOILER-BURNER UNIT



MODEL C 480 WATER-HEATER UNIT

GAR WOOD HEATING DIVISION
GAR WOOD INDUSTRIES, INC.
DETROIT 11, MICHIGAN

HARSCH
NOZZLES
ACCURATE • DURABLE
MADE OF THE BEST MATERIALS
All angles and capacities available for priority oil burner business.
Call on us for help with your nozzle problems.
H. HARSCH CO. Inc.
230 Tuscan Rd. Maplewood, N. J.

Rajah
HAND CRIMPING TOOL

IT CUTS AND STRIPS AND ALSO CRIMPS
Rajah Terminals to ignition cable without the use of solder or any other tools
The RAJAH COMPANY, Bloomfield, N. J.

## ASHVE to Celebrate 50th Anniversary

"THE PAST," "The Present," and "The Future" will be portrayed at the 50th Annual Meeting of the American Society of Heating and Ventilating Engineers to be held at the Hotel Pennsylvania, New York, January 31, February 1 and 2, 1944.

It was in the summer of 1894 that a small group met to organize the ASHVE, and in the report of the deliberations on September 10, it was significant that "temperature conditions were decidedly uncomfortable, but the meeting was very well attended." At this meeting the objects of the Society were outlined and a Constitution and By-Laws were adopted.

## Shell Awards

SHELL OIL COMPANY has made five awards to members of the field organization for "meritorious war work beyond the rendition of dutiful patriotic effort." The awards were made to P. E. Lakin, vice-president in charge of marketing, New York, to Preston Wentworth, Portland, Me.; George Blaser, Athol, Mass.; Jesse A. Harmon, Dover, Del.; C. A. Reynolds, Orange, Va.; and Peter Simon, Saginaw, Mich. The company's bi-monthly magazine, "Shell Progress," has received its third consecutive certificate of award as one of 50 direct mail leaders of 1943 in the annual campaign conducted by the Direct Mail Advertising Association.

## ODT Helps Find Truck Repair Parts

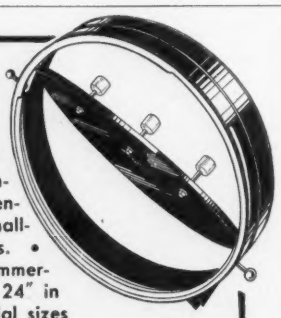
TRUCK owners and operators will receive increased help in finding needed repair parts during the coming months through the efforts of the Maintenance Specialists in the 142 district offices of the Office of Defense Transportation, ODT announces.

In addition to spreading the greatly expanded flow of new parts scheduled for production, the Maintenance Specialists have access to the lists of inter-changeable parts used in many types of trucks and will undertake to locate needed parts through ODT Maintenance Specialists in other cities, through parts makers and through the cooperation of the War Production Board, as well as through the local channels afforded by the industry-wide membership of local District Maintenance Advisory Committees and sub-committees.

### Local Committees

Through the cooperation of members of the local committees over half of the local parts shortages reported to ODT to date have been relieved locally. Through the 142 ODT District Maintenance Specialists, the local search is put on a nationwide basis.

To prevent avoidable lay-up of trucks, operators unable to find needed parts are urged not to delay getting in touch with their local Maintenance Specialist at the nearest district office of the Office of Defense Transportation.

PREFERRED
DRAFT-A-JUSTOR
The Original. Still the Best. Hundreds of Thousands in Use. • Holds the draft constant in the fire box. • Scientific draft control for the smallest to the largest jobs. • Stove, domestic, and commercial sizes from 4" to 24" in diameter. • Industrial sizes from 24" x 24" to 5' x 12'.
Write for literature and trade price

PREFERRED UTILITIES MFG. CORP.
1860 Broadway, New York 23, N. Y. Boston Office: 839 Beacon St.

AUTHORIZED PUMP SERVICE
Repairing Replacing
TUTHILL PUMPS
Sundstrand—Viking—Webster Pumps
Motors—Transformers—Controls
Parts for all Types of Burners
METRO SUPPLY COMPANY
15 HENDERSON STREET EVERETT, MASS.
Phone { Day: Everett 2661 / Night: Malden 2661

# MONARCH BURNER

## Accessories

**NOZZLES:** War orders are taking most of our production but we are *still* shipping emergency orders for one or two nozzles promptly.

**AIR CONES & STABILIZERS:** 3½", 4", 4¼" 4¾" and 6" tube sizes in stock.

**REGULATING VALVES & STRAINERS:** Immediate shipment can be made of some models of piston and double diaphragm valves and Type E strainers.

Write for Catalog D

MONARCH MFG. WORKS, INC.
E. WESTMORELAND & SALMON STS. PHILADELPHIA 34, PA.

HAVEN'T TIME TO TALK ABOUT FLUID HEAT'S RADICALLY NEW BOMBER HEATER... JUST WANT TO SAY WE'RE WORKING HARD SO FLUID HEAT CAN AGAIN TAKE ITS LEADING PLACE IN THE HOME HEATING FIELD !

**fluid heat**
OIL BURNER
*"World's Economy Champion"*
A PRODUCT OF HEATING DIVISION ANCHOR POST FENCE COMPANY
6700 Eastern Ave., Baltimore - 24, Md.

NATIONAL NRC RADIATOR

*Announces*

*the 50th Anniversary*

*of serving the*

## HEATING INDUSTRY

The late John H. Waters, former president of National Radiator Company, together with T. B. Belfield and A. H. Fowler organized The Fowler Radiator & Manufacturing Company at Norristown, Pennsylvania in 1894. The partnership was purchased by Mr. Waters and the business moved to Johnstown. Six additional plants have since been acquired at New Castle, Johnstown and Lebanon, Pennsylvania and at Trenton, New Jersey.

Throughout subsequent years, The National Radiator Company Research and Engineering Department has endeavored to introduce practical innovations and improvements in heating products. NRC has pioneered many advancements but firmly believes that the many excellent products provided in the past by the heating industry for the heating comfort of the public will be greatly surpassed in the post-war era.

With this premise as its goal—the NRC organization dedicates the years ahead to further improvements in products and heating comfort.

We appreciate the cooperation of wholesalers and contractors during the years of the Company's growth which has made possible our successful expansion. Distribution of product as in pre-war years will be continued in the post-war program.

ROBERT S. WATERS
*President*

**The NATIONAL RADIATOR Co.**
231-F Central Ave., Johnstown, Pa.

fuel oil & oil heat

**Special Bulletin to Manufacturers, Jobbers, Contractors, Dealers**
**IMMEDIATE DELIVERIES From Stock of L-R Type "IA" (050 series) Couplings**

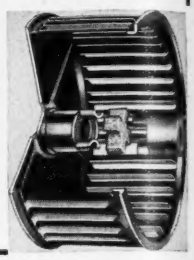
**L-R FLEXIBLE COUPLINGS**
NON-LUBRICATED

**for OIL BURNERS**

**Most dependable for absorption of vibration and shock and intermittent overloads, and correction of misalignment. Noiseless. Only two parts, metal body and resilient spider. Also for air conditioning and other light power.**

TO RIGHT: Oil burner blower wheel with L-R Type "IA" jaws formed integral with the hub.

L-R TYPE "IA" UNIFLEX.



WIRE OR WRITE—

**LOVEJOY FLEXIBLE COUPLING CO.**
5012 WEST LAKE ST., CHICAGO 44, ILL.

## *Last Month*

MASSACHUSETTS OIL HEATING Association held its annual Past Presidents' Night, December 21, with Edward H. Whittemore, new Fire Marshall of the State, and the Honorable William E. Kane, former mayor of Woburn, as special guests.

BURNING OIL DISTRIBUTORS Association, Chicago, at its annual meeting, December 16, reelected for their eleventh consecutive term: Frank E. Spencer, president; J. Loeffler, vice-president; R. E. Curran, treasurer; and F. B. Caldwell, secretary. Directors elected for two-year terms were C. S. Rosenthal, O. L. Peterson, and Phil H. Braun.

NEW YORK OIL HEATING Association, at its election meeting, December 6, elected Harry L. Bloomberg, president; Anthony J. Sbare, vice-president; Edward C. Bruns, secretary; Norris R. Skaggs, treasurer; and R. V. Perotto, sergeant-at-arms. Directors elected in addition to Messrs. Bloomberg, Sbare and Perotto, were Joseph Carini, George P. Gregory, George Knittel, George Meyer, Joseph Panzera, Hyman D. Rapps, and Joseph Reiss.

BRASS for radiator valve bodies is not prohibited since the first of the year, through it is not likely that production will be very great. Materials obtainable under CMP-4B will be the limiting factor.

L-22 has been amended to permit the manufacture of carbon steel inner liners for furnaces. Cast Iron also is being made available for feed door smoke curtains, feed door inner liners, hot blast lift doors and upright shaker handles.

WINDOW SHADES have been added to the list of fuel saving equipment, and advertising schedules of the Window Shade Institute stress the value of drawn shades to cut fuel consumption.

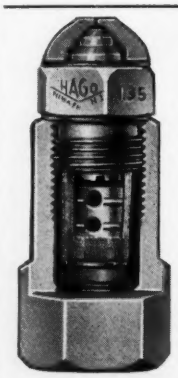
STOVE MANUFACTURER members of the Institute of Cooking and Heating Appliance Manufacturers met at Cincinnati, December 2 and 3. Board and committee meetings occupied the day December 1, and general sessions were held December 2. On December 3 division meetings were held, with Sheldon Coleman presiding at the meeting of the Oil Division.

WARM AIR FURNACE Industry Advisory Committee members recently opposed the uprating of emergency orders from AA-5 to AA-4, since the condition of "emergency" is hard to establish, and uprating may result in an unequal distribution of available furnaces. Uprated AA-5 orders also upset manufacturers' production schedules.

WHOLESALERS and retailers who use Form WPB 547 (PD-1X) are cautioned not to stock supplies of this form beyond immediate needs. There is a simplified form under consideration which may be adopted sometime in January.

PAW OFFICIALS and other groups have recently inspected Esso's giant "cat cracker" at Baltimore. The new catalytic plant, 253 feet high, will crack oil for the light ends needed in many war products.

**GILCO**
*Automatic*
**OIL-BURNING WATER HEATERS FOR GOVERNMENT PROJECTS**
**J. L. GILLEN CO.**
DOWAGIAC • • MICH.



**HAGO NOZZLES**

***Accurate, well-made, dependable for war economy needs.***
**All capacities and spray angles.**
***Also, 2 nozzle kits:***

**POCKET-SIZE KIT will hold 12 nozzles and strainers.**

**SERVICEMAN'S KIT will hold 18 nozzles, strainers and adapters as specified. Contains necessary tools. (Sprays: 30, 45, 60, 70, 80, 90).**

***Send for further information and prices. Quick service.***

**HAGO PRODUCTS**
**592 Hawthorne Ave., Newark, N. J.**

**OIL IS AMMUNITION**
USE IT WISELY

PETRO
Reg. U.S. Pat. Off.

**"OIL MISER" BURNERS**

**Engineering Co-operation and Services continue as always**

Our greatly increased factory facilities are now completely on WAR PRODUCTION.

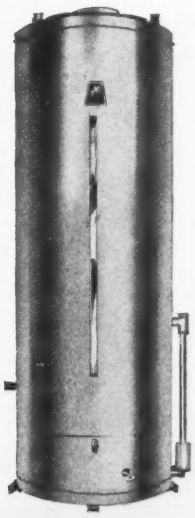
**. . . But our Engineering Division is fully manned and we are rendering every possible service to the trade.**

REPAIR PARTS (subject to Priorities Order) are and will be available.

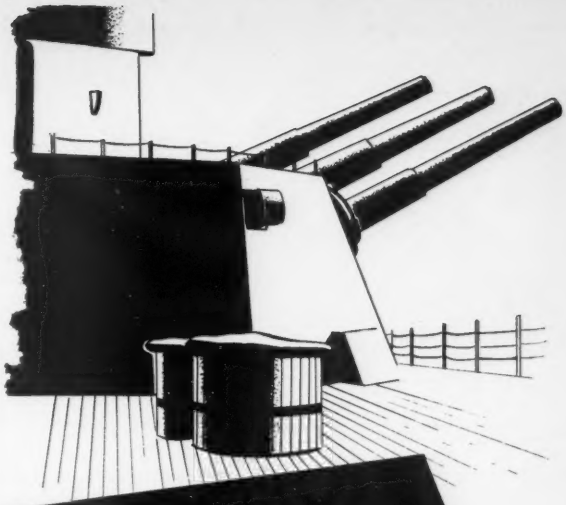
**PETROLEUM HEAT & POWER COMPANY**
*Makers of good oil burners since* 1903
**STAMFORD** **CONNECTICUT**

Lochinvar
OIL BURNING
WATER
HEATERS

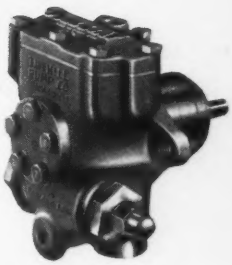
The SECRET of
Lochinvar's Outstanding
Success
is the
MULTIPLE-STAGE
BURNER



**MICHIGAN TANK & FURNACE CORP.**
14101 PRAIRIE DETROIT 4, MICHIGAN



IN SERVICE--
WHERE IT HELPS
THE MOST



As long as there's a war to win, Tuthill Pumps and Fuelstats are needed on the fighting fronts. Obviously, helping to fire the big guns on the war front takes precedence over helping to fire oil burners on the home front. To keep present pumping equipment operating efficiently, you can look to Tuthill's authorized service stations or the factory for repairs and reconditioning.

TUTHILL IS BUILDING "FIGHTING PUMPS" FOR THE ARMY, NAVY, AIR FORCE AND MERCHANT MARINE.

**TUTHILL** PUMP COMPANY
939 EAST 95TH STREET • CHICAGO 19, ILLINOIS

# EDCO SERVICE KIT

— FIG. 254 —

**CONTENTS**

33 Assorted Nozzles
33 4C Strainers
4 Nozzle bodies 1/8" or 1/4"
1 150 lb. Pressure Gauge
1 3/4" Forged Wrench (steel)
1 5/8" Forged Wrench (steel)
1 Yanke screw driver
1 Tip and Nozzle Body Jig
12 Tooth Picks
1 Standard Capacity Chart
1 Chart showing approximate combustion chamber sizes

*Information upon request*

**EDDINGTON METAL SPECIALTY CO.**
**EDDINGTON, PENNA.**


*Harold K. Seywert* has been elected vice-president of the Maritime Petroleum Corp., New York, after 13 years service with the Company. He was originally New Jersey sales representative, subsequently sales manager, which position he still holds.

*Harvey D. Carter,* director of the Supply Division, PAW, resigned in early December because of ill health.

*Peter Storti* has been appointed manager of the Combustion Equipment Div. of Enterprise Engine & Foundry Co., San Francisco oilburner manufacturers. Before joining Enterprise four years ago, Storti was associated with the Ray Burner Co.

*George H. Fox* has been appointed manager of the Philadelphia territory for H. A. Thrush & Co. The territory includes Eastern Pennsylvania, Southern New Jersey, and Wilmington, Del. *C. Lawrence Sargent* who has been covering the area has returned to the factory at Peru, Ind., in charge of the engineering department.

OIL FROM COAL production may soon be started experimentally in Canada if recommendations of a House committee are adopted. Experiments indicate that hydrogenation of bitumin from Alberta sands would yield 194 gallons of gasoline per ton; Nova Scotia coal about 143 gallons; British Columbia coal 121; Alberta coal 93; and Northern Ontario coal about 50 gallons of gasoline per ton.

MINNEAPOLIS - HONEYWELL Regulator Co., has bought a new 10-story plant at Minneapolis which will increase the company's locally owned productive facilities by almost 50%. The building was purchased from the Ford Motor Company, and its intended for postwar manufacturing.

EMPIRE STATE Petroleum Association will hold its spring meeting, March 22 and 23, at Syracuse, N. Y., Harry B. Hilts, secretary, reports.

STUDEBAKER is distributing a new booklet, "Wartime Information for the Delivery Truck Operator," containing the complete text of ODT 17, and questions and answers on government regulation of wholesale and retail deliveries. The booklet also gives hints on truck maintenance and care.

HAROLD W. WINNINGHAM & Co., Seattle, manufacturers' representatives and engineers, has named Lawrence J. Coman as Southwest District Manager with headquarters at Los Angeles.

YORK CORPORATION has opened a new Philadelphia branch at 1616 Walnut Street. M. S. LeBair is manager.

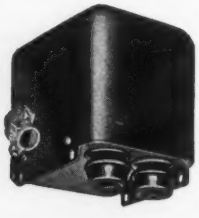
MACK MFG. CO. has been awarded the National Security Award by the Office of Civilian Defense. Mack is one of five recipients who achieved outstanding success in organizing wartime protective programs.

LACLEDE-CHRISTY CLAY PRODUCTS CO., St. Louis, has named Energy Control Company, New York, as New York representative. The company will carry stocks of refractory products for New York distribution.


**DONGAN TRANSFORMERS**

***Engineered to Give Dependable Performance***

Because Dongan transformers are engineered to meet the special requirements of oil burner ignition, they can always be relied upon for dependable performance. Remember this when you are designing your post-war oil-burner. See Dongan about its transformer equipment.



*Voltages from 5,000 to 15,000. A variety of sizes and mountings. Special types built to specifications.*

**Dongan Electric Manufacturing Co.**
2981 Franklin Detroit 7, Mich.
*"The Dongan Line Since 1909"*

WRITE FOR LITERATURE

**INCLUDE GUARDIANS**

**IN YOUR Post-War Planning**

● Guardians have ably served in war and peace. When victory is won and production is resumed, Guardians will be ready to serve you again.

Guardian Direct Drive Couplings have exclusive rubberized cushions. No parts to get out of order, or to lubricate.

***WRITE FOR INFORMATION***

**GUARDIAN UTILITIES CO.**
218 E. MICHIGAN STREET MICHIGAN CITY, INDIANA

# *SAFETY

## Things to look for when you're buying Gauges

SAFETY . . . Fuel storage tanks must be guarded against oil seepage, fumes escaping. Rochester Gauges for use where there's danger of fire are especially designed for SAFETY. Gauge heads, where trouble can begin, have no shaft connection through them—they're sealed off by a pressure-resistant solid metal floor.

To put **SAFETY** into unattended engines, boilers, use Rochester Electric Contact Gauges with trips for automatic shut-off at any predetermined pressure or temperature.

**Call in a Rochester specialized engineer**—he will be glad to help you solve your gauging problems. There is no obligation involved.

**ROCHESTER MANUFACTURING CO.**
**—ROCKWOOD ST., ROCHESTER 10, N. Y.**

***Makers of Fine Gauges "For the True Inside Story"***

**ROCHESTER** *Individually Calibrated* **GUARANTEED ACCURATE INSTRUMENTS**
FOR ACCURATE LIQUID-LEVEL, PRESSURE and TEMPERATURE INDICATION

# HEIL

## *is the Name to Remember*

**— for oil burners . . . oil-designed furnaces and boilers *that assure you of:***

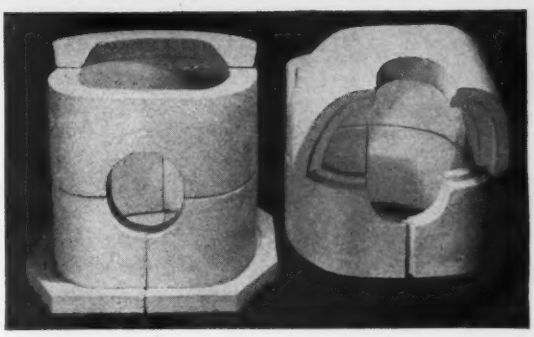
- ✓ Satisfied, loyal customers
- ✓ Minimum service trouble
- ✓ Efficient, economical operation
- ✓ Design features that sell
- ✓ Profitable manufacturer-dealer relations

H-1

HEIL ANSWERS UNCLE SAM'S CALL
". . . and helps the Arsenal of Democracy supply materials for Victory!"

**THE HEIL CO.**
GENERAL OFFICES: MILWAUKEE, WISCONSIN

*fuel oil & oil heat*

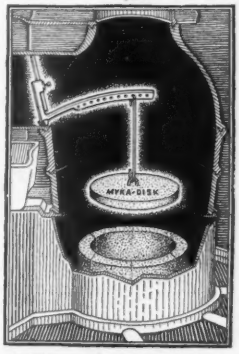


# "IN-QUIK" FIRE CHAMBERS

**Installed in a few minutes. No bonding cement needed. Horizontal rabbeted joints, and vertical tongue-and-groove joints are flame-tight, and give a locked, well-anchored structure. Walls 2" thick. Chamber will withstand over 2600°F. Corrugated under-surface of floor forms dead air spaces beneath chamber.**

| Size | Gal. P. H. | Sq. In. Inside | Inside Length | Inside Width | Height | Weight, Chamber |
|---|---|---|---|---|---|---|
| No. 1 | 1-1.35 | 115 | 13" | 11" | 13" | 87 lbs. |
| No. 2 | 1.35-1.65 | 149 | 13" | 13" | 13½" | 96 lbs. |
| No. 3 | 1.65-2.00 | 179 | 16¼" | 13½" | 13½" | 112 lbs. |

Chamber only, or Chamber and Floor, are optional. Packed in strong wood crates.




5 Minutes to install in feed-door of furnace or boiler.

# MYKA-DISK No. 1

Reduces oil bills 10% to 15% and more. Permits live heating surfaces to absorb more heat units. Lowers stack temperature, lessens soot-formation, raises $CO_2$ content of gases, improves combustion, brings faster heating, and does not hurt draft.

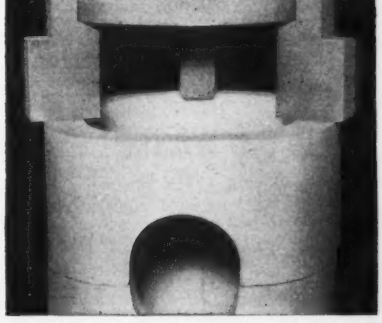
*MYKA-DISK* Baffle is 10", 12", or 14" dia., and 1¼" thick. Reinforced with stainless steel rod.

*DISK-ARM* (Pat. pending) is rugged gray-iron casting. Fits any feed-door by means of *SLIDE-BAR* and *SET SCREW*. Suitable for plants 18" to 30" I.D.

*HANGER-ROD* is 3/16" stainless steel. High tensile strength at red heat. Cannot be dislodged when hooked through center loop of *MYKA-DISK*. No. 1 Outfit shipped complete (DISK size as desired) in strong carton, or 3 Outfits per wood crate.

# MYKA-DISK No. 2

Brings same beneficial results as No. 1 Outfit, but lower-priced. MYKA-DISK (10", 12", or 14" dia.) is supported on 3 refractory *ADJUSTO-LEGS* having "steps" 5", 6½" and 8" above top of firepot. Legs may be "spotted" with cement, but this is not essential. Installed in a few minutes. No harmful effect on draft. *ADJUSTO-LEGS* and *MYKA-DISK* withstand more than 2600°F. Practically indestructible. The price is easy on the Owner's purse. A very fast seller. No. 2 Outfit shipped complete (*DISK* size as desired) in strong carton, or 3 Outfits per wood crate.



MYKA-DISK resting on ADJUSTO-LEGS on top of any Fire Chamber.

For Prices and Trade Discounts, write

**INSULATION & REFRACTORIES CO.**
**WILLIAMSON • WAYNE COUNTY • N. Y.**

# THE GENERAL PROTECTS THE HOME FRONT

The GENERAL Filter defeats the "filth" column—the gums, waxes, dirt and other foreign matter which fouls nozzles. Saves service calls and time.

A legitimate, wartime profit-maker, the General is easy to sell, and easy to install. Servicing is quick and simple—a twist of the wrist. No tools required.

**MODEL 2A-300 FOR ALL POWER OIL BURNERS**

*Excellent design—Fine workmanship. A good record of service to the Field. Dependable.*

**General Filters, Inc., 14435 Grand River Ave., Detroit 27, Mich.**

**GENERAL FUEL OIL FILTER**

*Write for Literature*

*Listed: Re-Examination Service, Underwriters' Laboratories*

Model 2A-300


## Declining Debt Builds Potential Buying Power

CONSUMER DEBT is now declining while national income is rising, according to the Bulletin of the Cleveland Trust Company. This is unusual for consumer debt ordinarily increases while national income is advancing, and decreases while national income is falling. Consumer debt consists of obligations resulting from installment purchases and of charge accounts at stores. Ordinarily increases in such debts contribute to national income because they operate to increase demand for new goods of all kinds including heating equipment. In wartime such goods are not available in large quantities so the debts instead of rising are paid down.

In the autumn of 1941, well before our entry into the War, the volume of consumer debt turned downward. It has been falling rapidly ever since and by April of 1943, more than half of it had been paid off, leaving a balance of around five billion or somewhere near the depression lows of 1932 and 1935. It is destined to decline considerably further, for its rate of descent is rapid.

As would be expected the largest single item in the decrease in consumer debt is that resulting from the paying off of installments originating from the purchase of automobiles. That debt, which amounted to about 2-1/3 billions in 1941, is now about 90% paid down. The next largest proportionate decrease among the installment debts is that incurred for household appliances, which is about 77% paid off.

The paying down of consumer debt is a desirable development according to the Cleveland Bulletin, as it exerts an anti-inflationary influence. The present decrease in these debts will create increased potential purchasing power which will be available for use when peace returns.

◈

## Army Checks Coal Waste

THE Army has put a slide rule on its winter coal requirements.

An ingenious "fuel computer," designed by the Corps of Engineers for calculating fuel requirements on Army posts, is a circular slide rule using the factors of known floor area to be heated, fuel allowances per unit area, and number of "degree days" normally occurring in the locality for the season.

By using the computer, Post Engineers responsible under Army Service Forces' command for keeping troop communities adequately heated, may order their season's coal requirements far enough ahead to free the nation's coal supply system for civilian peak demands. The slide rule also provides a handy check against above-average use of fuel at any Post or at any group of buildings within the Post.

The total square feet of floor area on Army Posts, including warehouses and hutments as well as barracks, now reaches the astronomical figure of 1,180,243,710.

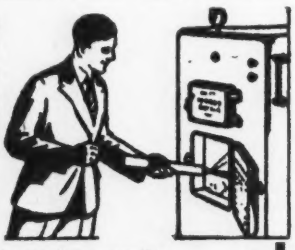
◈

TITEFLEX, Inc., is the new name of the former Titeflex Metal Hose Co., Newark, N. J., since 1914 manufacturer of flexible metal tubing.


**WAR ON WASTE!**

**Increase efficiency of oil** by keeping heating unit free from excess soot. All oil soot in fire chamber and flues vanishes instantly when sprayed with E-Z Fuel Oil Soot Destroyer.

E-Z FUEL OIL SOOT DESTROYER



**DISTRIBUTORS: Write for fine proposition.**

HEALY-RUFF COMPANY, 797 Hampden Ave., St. Paul, Minn.
Enclosed find check ( ) money order ( ). Send the following prepaid:

No. 1 size.....$1.00 No. 5 size.....$4.50

Name .....

Address .....

City ..... State.....

***SAVE***

**TRUCKS — TIRES — MANPOWER**

**VENTALARM**

*The Whistling Fueloil Tank Signal*

**SCULLY SIGNAL COMPANY**

**88 FIRST ST., CAMBRIDGE, MASS.**

I PREDICT THAT FLUID HEAT WILL AGAIN LEAD THE HOME HEATING FIELD AFTER VICTORY!

Right now Fluid Heat is busy making a radically new type of heater for bomber planes. But after Victory we'll be back again in our top position in the home heating field!

**fluid heat**
OIL BURNER
*"World's Economy Champion"*

A PRODUCT OF HEATING DIVISION ANCHOR POST FENCE COMPANY
6700 Eastern Ave., Baltimore - 24, Md.

## MAKE A SCORE IN '44 WITH THE SHEPHARD LINE OF HEATERS AND BOILERS

THE FAMOUS Percolating Hot Water Heaters and Boilers have earned their reputation through excellent performance and efficiency.

**Shephard Heaters and Boilers are all automatic controlled—Equipped with gun type burners. Heaters are fully galvanized to insure clean water.**

Start your post war line NOW.

Get your share of extra business under the new General Limitations Order #185. Write, wire or phone for full details.

**SHEPHARD HEATER COMPANY**

6624-36 South Park Ave. Chicago, Ill.

## THE DIVIDENDS of A-P DEPENDABILITY

*Convenient* **HEAT . . .**

Helping to popularize modern oil heating appliances — by providing CONVENIENT, fuel-saving oil controls — has been our privilege at A-P for many years. And this *convenience,* a ready sales advantage for dealers, is an operating feature appreciated today by our armed forces and by thousands of satisfied homemakers . . . a "dividend of A-P Dependability," proved in the past that will work to future benefits.

New progress in research and development at A-P will add even greater "dividends" in accurate, DEPENDABLE fuel control to post-war heating appliances. This is a promise even now taking shape in the A-P Laboratories, where designers and engineers, working with the accumulated knowledge of past months and years, are ready for new control applications to peacetime heaters and other products. Watch for these new "dividends of A-P Dependability" on your new post-war products.

**AUTOMATIC PRODUCTS CO.**

2458 North Thirty-Second Street
Milwaukee 10, Wisconsin

*Dependable* OIL CONTROL VALVES

fuelfoil & oil heat

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## FUELOIL & OIL HEAT CLASSIFIED ADVERTISING

Insertions are payable in advance. The rate is 75 cents per line, with a minimum charge of $4.50 for six lines or less.

### Robert Barclay INC. OIL BURNER SUPPLIES

No priorities needed for Barclay's Saran plastic tubing and fittings—replaces copper and steel. Save fuel and money with Barclay's draft regulators and insulating material. Write for our catalog of all installation accessories and replacement parts for oil burners, stokers and automatic heating. Robert Barclay, Inc., 130 N. Peoria St., Chicago, Illinois.

BELLOWS!! BELLOWS!! BELLOWS!! All makes at manufacturers' list prices. Immediate shipment. No COD's. Enclose check and priority certification with order. SPECIAL—Adapter housing and shutter assembly for Electrol and Pioneer—takes any standard make of fuel unit—now only $4.25 FOB. Oil Burner Parts Co., 8720 Parsons Blvd., Jamaica 2, New York.

KARBON-OFF Soot Destroyer: 50,000 lbs. can't be wrong. Quick, clean and harmless. Packed in ½ to 50 lb. containers. 5 lbs. free with each 50 lb. unit. KLEER-OUT Single Treatment Boiler Cleaner: $4 per dozen plus 2 free. Send for our free catalog of specialties. DIAMOND CHEMICAL PRODUCTS, 17 E. 48th St., New York 17, N. Y.

FOR SALE—100 boiler or furnace casings 20 gauge auto body stock—green baked enamel finish. Size 27" x 50" x 56". Packed in individual cartons ready for shipment. MR. WITTKE—OIL EQUIPMENT LABORATORIES, INC., Elizabeth, N. J.

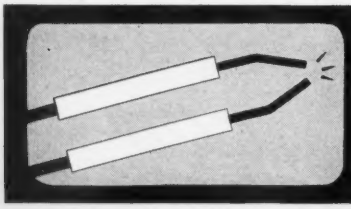
FUEL OIL AUTOMATIC DEGREE DAY DELIVERY SYSTEM will handle 500 customers at nominal sum of $75. Consists of folders for protecting and recording customers' coupon ration sheets, degree day cards, indexes, Degree Dayometer computing machine and complete instructions for installation and operation. If you have more or less than 500 customers the system is priced proportionately. This system is now being satisfactorily used by many thousands of fuel oil distributors. If you have not received our 1943-44 Degree Day Log, write immediately and same will be mailed gratis. DEGREE DAY SYSTEMS, 5104—39th Avenue, Woodside, N. Y.

ATTENTION DEALERS—LIMITED SUPPLY LEFT. OIL BURNING FURNACES — complete with OIL BURNER-AIR CONDITIONING BLOWERS — CONTROLS — FILTERS — HUMIDIFIERS and a green deluxe square casing. Pre-war prices—write for free literature. American Stoker Co., 3934-36 W. Cermak Road, Chicago, Illinois.

Want to purchase "KELL KAIL" Booster Cails or similar type. Have WPB permission. Please state how many you have and whether oval or round type. Also state best price. D. I. Pulverman, c/o Shedlov Oil Burner Co., 715 3rd Ave., So., Minneapolis, Minn.

Dissolve any fuel oil sludge in lines, tanks, and strainers with liquid SLUDGE CUTTER (harmless to metal, safe flash, completely soluble in oil). Buy from your nearest wholesaler: Bell Pump Service Co., W. Hartford, Conn.; Cronin Supply Co., Cambridge and Waltham, Mass.; E. L. Kimball Co., Malden, Mass.; W. S. Plummer, Wollaston, Mass.; Providence Plumbing Supply Co., Providence, R. I.

SALES—Man with 20 years oilburner and accessory sales experience wants sales job with reliable manufacturer. Thorough knowledge of burners and markets. Wide dealer acquaintance. Box 467, FUELOIL & OIL HEAT, 232 Madison Ave., New York 16, N. Y.

DIELECTRIC
PRODUCTS COMPANY, INC.
125 VIRGINIA AVENUE, JERSEY CITY 5, N. J.

Ignition Electrodes, Insulators, Cables, Bus Bars, Assemblies

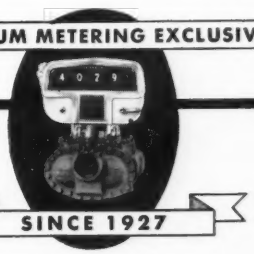
Each product individually tested and inspected to assure perfect performance on the job. More than a million in use!

## BRODIE METERS ARE SERVING BY CONSERVING

At no time in the entire history of Petroleum Marketing has exactness and efficiency been more important than it is today. Every ounce of waste in time, equipment, manpower, mileage and stocks must be avoided if the home front is to keep the far-flung battle fronts supplied with enough and on time. By constantly keeping an accurate and continuous record of all stock movements, Brodie Meters are not only saving fuel oil operators costly delays and losses, but also they are making every trip, every gallon and every minute count. Keep serving by conserving with Brodie Meters.

# BRODIE METERS

PETROLEUM METERING EXCLUSIVELY



SINCE 1927

**RALPH N. BRODIE CO., INC.** 953 61st Street, Oakland (8) California • Cable Address: "BRODICO"
Division Offices: Chrysler Bldg., New York City • 59 E. Van Buren, Chicago • 302 South Pearl St., Dallas, Tex.
*Representatives and Stocks in All Principal Cities*

*Normandy Village, Union, New Jersey heated with B & G Monoflo Systems.*

# *A Complete Village* HEATED WITH

## THE SAME SIMPLE EQUIPMENT AS THIS COTTAGE

**The B & G Monoflo System is notable for its smooth modulation of temperature without complex control equipment. Its operating parts are fool-proof and dependable. No size limit—installations of over a quarter million sq. ft. are now in operation.**

B&G BOOSTER

B&G MONOFLO FITTING

B&G FLO CONTROL VALVE

Builders today are specifying the B & G Monoflo Heating System for the common sense reason that it offers *more comfort for less money!* It has established a new heating standard in residences, apartments and industrial buildings because of—

**Simplicity of equipment and design.** No complicated, expensive control devices—therefore easy to design and dependable in operation.

**Greater comfort.** Never overheats in mild weather, yet has plenty of reserve when the thermometer hits bottom. Easy zoning permits sectionalized temperature control . . . a great comfort and economy feature in apartments and industrial plants.

**Low operating cost.** Accurate balancing of heat input and heat loss means that *just enough* fuel is burned—hence economy of operation.

**Low installation cost.** Small radiators, small pipe and a *single* main instead of two, cut material and labor cost.

**B & G HANDBOOK GIVES COMPLETE DESIGN INSTRUCTIONS**

Here's a single, authoritative source of information on the design and installation of Forced Hot Water Heating Systems and Service Water Heating Systems. The B & G Handbook presents a simplified outline of instruction, easy to understand and based on accepted engineering practices. Your copy will be sent on request.

# B&G MONOFLO SYSTEM

BELL & GOSSETT COMPANY

MORTON GROVE, ILLINOIS *(Suburb of Chicago)*

*Canadian Licensee: S. A. Armstrong, Ltd., 115 Dupont St., Toronto*